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Supreme Quality Cultured
CHRYSANTHEMUMS
and The Finest Carnations

American **Bull Company**

1335 W. RANDOLPH ST.
CHICAGO 7, ILL.



31 WEST 27TH ST.
NEW YORK 1, N.Y.



A House of Stock Plants for A.B.C. Cuttings.

The popularity of the Chrysanthemum has made it a universally grown crop and it is very essential that all growers start with cultured healthy cuttings. These are the kind you will find in the pages listed in this catalog.

WHAT CAUSES PREMATURE BUDDING OF CHRYSANTHEMUM CUTTINGS DURING THE SPRING MONTHS, AND WHAT TO DO TO PREVENT IT*

Bud initiation can occur any time during the spring months, whenever your temperatures in the greenhouses are consistently 60 degrees Fahrenheit or above, and the days are short enough to initiate bud setting. These conditions can occur any time up until May 1st depending upon the variety and the locality in which they are being grown. Some varieties such as the garden varieties and early shading varieties require very little short day treatment, coupled with high temperatures to initiate buds. This same tendency to set bud readily is what makes these varieties desirable for early shading and garden work.

In order to prevent this premature setting of buds, these same varieties should be placed where they can be given additional light during the early spring months. Use 60 watt bulbs spaced 4 feet apart and 30 inches above the plants. Use the lights for a period of two hours each night after dark up until May 1st, then discontinue lighting.

*Courtesy of our Growers.

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A.B.C. Mum cuttings are packed in specially designed cartons and rushed to you by express to insure their reaching you in perfect conditions.

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All goods are offered subject to crop failures, shortages or other causes beyond our control and to being unsold on receipt of order and we reserve the right to advance prices without notice.

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The Culture of Chrysanthemums, Any Season

By D. C. KIPLINGER

ASSOCIATE PROFESSOR OF FLORICULTURE
OHIO STATE UNIVERSITY

Only fine quality chrysanthemums can be grown to compete in today's flower market. It is the aim of this catalog to present in brief but concise form the essential points in production of quality chrysanthemums.

NATURAL FLOWERING

Many growers prefer to flower the chrysanthemum only in its natural season and follow with different crops at other seasons of the year.

CUTTINGS

If possible, the cuttings should be planted as soon as they arrive. If there is no bench space available, the boxes of cuttings may be placed in a cool storage (32° to 40°F.) for as long as 2 weeks without damage, but longer periods are not recommended. To "soak up" cuttings which appear dried out from transit or storage, drop them in water for 10 to 15 minutes before planting.

BENCHING

The usual planting distance is 7 x 8 or 8 x 8 inches for plants to be pinched once. Set the plants quite shallow—deep planting may encourage stem rot. Even if they escape diseases, cuttings planted deep never start off as rapidly as those planted so that a few fall over with the first watering. Only 2 to 3 weeks is needed between planting and pinching which means that most cuttings will be planted in late June and July for natural flowering.

SOIL

Chrysanthemums do best in a well prepared soil that drains well yet retains adequate moisture and fertilizer to promote rapid growth. Organic matter is of the utmost importance in obtaining a desirable soil condition.

For years well rotted manure has been used with satisfactory results when added to the soil 1/3 to 1/4 by volume. Since manure is no longer easy to obtain, peat has been substituted and for many florists has proven better than manure. Peat has practically no fertilizer which virtually eliminates dangers of building up too high a concentration of nutrients in the soil for starting young plants. In addition, it resists decomposition and the soil will remain in better physical condition for a longer time with peat than with manure. Finely ground peat is not very satisfactory—only the coarser grades are recommended.

Whatever organic material you use, add enough to "condition" the soil. A tiller of some sort will do a better job of incorporating organic matter than spading in by hand.

Steam sterilization of soil is preferred to all other methods of controlling soil pests. Allow the soil to remain at 180°F. for 30 minutes and then turn the steam off. As soon as the soil is cool enough, cuttings can be

planted—there is no need to wait 2 or 3 weeks. Failure of cuttings to start properly in steamed soil is due largely to the fact that insufficient water is applied to the steamed soil. Steaming "opens up" most soil so water runs through freely. Therefore, it is very important that steamed soil be watered **thoroughly** to insure that all parts of it are wet. This can be most easily accomplished by watering newly planted cuttings at least twice. Examine the soil carefully and if dry areas are noted, water again even though much of the soil may be soaked. If the plants don't get off to a good start, they will never be top quality.

If reasonably fresh manure has been added to the soil, damage from ammonia may be noted in the form of browning of the stem tips and very young leaves. This can be prevented by broadcasting either gypsum or superphosphate onto the soil before or after steaming at 5 lbs. per 100 sq. ft.

Sometimes the soil may be either too acid or alkaline. Sulfur or iron sulfate at 1 lb. per 100 sq. ft. may be broadcast on the soil to lower the pH or make it more acid. Lime or limestone additions will raise the pH and generally from 3 to 5 lbs. of either material are applied to 100 sq. ft. of soil. When in doubt, send a soil sample to your State Experiment Station or County Agent to have it tested for pH. Mums will grow satisfactorily between pH 6.0 and 7.5.

FERTILIZER

Chrysanthemum cuttings start off best when the fertilizer content of the soil is low. Therefore, complete fertilizers should **not** be mixed with the soil before planting because there is danger of root damage to the young plants. If the soil is low in phosphorus, the incorporation of 5 lbs. of superphosphate per 100 sq. ft. will correct this deficiency and as stated previously will prevent ammonia burn.

As soon as the plants are well established, it is time to begin fertilizing, particularly with nitrogen since this is the key element in promoting plant growth. It is important to remember that chrysanthemums are not "heavy feeders" and they will do best when given light applications of fertilizer often. Whether dry or liquid fertilizers are used makes no difference—it depends upon your personal preference. Because watering will remove some of the fertilizer, particularly nitrogen, it is suggested that fertilizer be applied every 2 to 3 weeks. On poorly drained soil, less frequent applications should be made.

Some growers prefer to use complete fertilizers since they are easy to apply, particularly in dry form. Other growers will use just nitrogen and potassium because they are cheaper than complete fertilizers and the initial incorporation of superphosphate has supplied suf-

ficient phosphorus for the life of the crop. Such materials as ammonium sulfate or sodium nitrate are used at 1 lb. per 100 sq. ft. or 1 oz. per 2 gal. while muriate of potash can be used at half this rate. An excellent source of nitrogen is ammonium nitrate which is used at $\frac{3}{4}$ lb. per 100 sq. ft. The fertilizer material potassium nitrate is ideal in that all of it can be used by the plant and leaves no salt residue in the soil. It is used at 1 lb. per 100 sq. ft. or 1 oz. per 2 gallons. Fertilization should be discontinued when buds begin to show color.

Where soil tests are used as a guide to fertilizer applications, nitrate nitrogen should be maintained at 25 parts per million (ppm), phosphorus at 5 ppm, potassium at 20 ppm, and calcium at 150 ppm using the Spurway system. The total fertilizer content of the soil is also very important. This is called the soluble salt or Solubridge reading and consists of a measure of all the fertilizers in the soil such as nitrates, sulfates, phosphates, potassium, carbonates, copper, boron, zinc, etc. Based on the use of 1 part of soil to 5 parts of water, a Solubridge reading less than 30 indicates the plants are being starved. Between 30 and 80 is considered ideal and 80 to 100 somewhat high. If 100 to 150, this indicates too much fertilizer and the plants probably are not growing as they should. Readings over 150 are usually associated with very poor growth or death of the plants.

Excessive fertilizer can be removed by heavy watering or leaching. Several leachings may be necessary to wash out the unnecessary fertilizer. High salt content of the soil may cause yellowing of the tops of the plants (chlorosis), but it should be pointed out that low pH and overwatering will do the same thing.

When the cause of chlorosis is remedied, the green color of the plants can be restored quickly by use of a material called chelated iron. The 12% chelated iron compounds are used at 1 oz. per 20 gallons of water and the solution is applied to the soil like a liquid fertilizer. The 6% chelates are used at twice this strength.

When either dry or liquid fertilizers are applied, it is very important that the soil be moist. As the fertilizer is washed into the soil, it is constantly being diluted by the moisture in the soil and this prevents root damage. If the soil is dry, the strong fertilizer solution will burn the roots.

WATERING

As soon as the cuttings are planted they should be watered twice. This will insure that the soil is moist in all parts. This is particularly important in steamed soils where the granulation or clumping together of soil particles causes air spaces through which water will flow rapidly. The level of the soil in the bench should be about one inch below the sideboards so that the water will not flow off the soil into the walks.

As the crop grows watering will become more frequent and during the hot summer weather, it is not uncommon to water the soil every other day. Such frequent watering will leach out nitrogen and it is important that the plants do not become starved at this time.

MULCHING

A mulch will reduce evaporation of water from the soil surface and will be beneficial in preventing crusting over of the soil. Peat is a very satisfactory material and an inch mulch is recommended. Unsterilized manure introduces weeds and weed seeds and may possibly carry root-knot nematodes; therefore, it is not advised. Too deep a mulch may encourage growth of organisms causing stem rot.

PINCHING

Chrysanthemum plants are pinched to induce branching and only one pinch is necessary to obtain the desired number of shoots. The time that the plants are pinched will regulate the spray formation on spray types and the kind of a bud on standard types. Thus the term "time pinching" has come into general use. A pompon plant pinched at the correct time will usually have a branched spray bearing numerous flowers but the sprays will not be awkward and difficult to bunch attractively. Plants pinched too early have awkward, lumpy spray formations while those pinched too late have clubby, tight clustered flower heads. A standard mum time pinched will have a straight stem but if pinched too early, a "crown" bud forms which must be removed and this causes a dog leg in the stem making it crooked.

Cuttings should be benched 2 to 3 weeks before they are to be pinched. If given too much time to grow, they may form a crown bud and branch, making the operation of pinching a cumbersome procedure. Since the early flowering varieties are pinched before the later types, it is obvious that the early varieties should be planted first to be followed by the later maturing kinds. If everything is planted at once, the late varieties are sure to be very tall and possibly branched when they are ready for pinching.

Remove only a portion of the soft stem of the plant when pinching. A pinch made in hard wood usually results in fewer breaks that are delayed in their development.

PRUNING

Removing some of the stems on the spray type chrysanthemums several weeks after pinching is now a common practice. If all stems are allowed to develop after pinching, many will have few flowers and some will be blind. Light is the factor that is all important and if uniform quality stems are desired, the shoots must be pruned so that each receives approximately the same amount of light.

A retail grower can use some of the sparse flowered sprays in small arrangements, but a wholesale grower cannot afford to grow this kind of stock. Therefore, pruning to four stems per plant on pompons is recommended. If even better quality is wanted, retain three stems on all plants except the outside row which can have four because of the extra light. Standards usually are grown two per plant and here again three stems can be carried on plants in the outside row.

DISBUDDING

When growth is vigorous, many varieties of chrysanthemums will develop side shoots which should be re-

moved periodically. This will be noticed particularly on the outside rows when spray type mums are being grown. On standards, only one flower is produced per stem so that all side shoots should be removed when they are long enough to handle conveniently. When the flower bud appears at the top of the stem of a standard mum it will be surrounded by smaller flower buds. These should be removed when of convenient size so that the central bud will mature rapidly and be of large size.

Occasionally on standard mums a "crown" bud will develop. This is a flower bud which forms in long days and is surrounded by vegetative shoots. In most cases the crown does not make a desirable flower, hence it should be removed and only one strong, straight, vegetative shoot immediately below it should be retained. Crown buds are quite apt to appear when the plants are pinched too early.

Some of the larger flowered spray type chrysanthemums are improved if a few of the flowers are removed. This adds size and quality to the remaining flowers. The larger decorative or anemone types can be markedly improved by removing the center flower since this "loosens" the spray formation.

TEMPERATURE

Although the chrysanthemum flowers in the fall, it is not a cool crop as has been believed. Most varieties will not form flower buds unless the night temperature is 60°F. Therefore, between August 15 and September 15 when flower bud formation normally takes place, it is very important that the night temperature be high enough. If the temperature is not sufficiently high, the plants will be blind; this is common on late varieties which form buds late. When flower buds are visible, the temperature may be reduced gradually to 55° or even 50°F. which will enhance the quality of most varieties, but delays maturity. Many 13 and 14 week varieties must be cooled somewhat to develop the flowers. Keeping the houses at 45°F. will delay development but quality suffers. In the greenhouse the stock may look perfect at such a cold temperature, but after it is cut and placed at room temperature it may not take up water and deteriorates rapidly.

LIGHT

To get the highest quality product, the plants should receive as much sunlight as possible. This means that no shade should be used on the glass unless the temperature in the greenhouse becomes unbearable as it may in the South.

Petal burn may be found on soft varieties that flower in periods of bright light and this can be prevented by placing cheesecloth about two feet above the flowers.

SUPPORT

The spray type chrysanthemums are generally supported by wires run lengthwise between the rows with strings crosswise between the plants. If turnbuckles are used to keep the wires tight, only one such set of wires and strings is needed providing it is raised periodically as the plants grow. Many growers prefer two sets of wires and strings. Since the flowers constitute about half the weight of the stem, the top set of wires must be high enough to prevent lopping.

Standards can be supported in the same manner as described for spray types. Seldom seen are wire or bamboo stakes to which the stems are tied loosely every 6 to 8 inches. Such stakes are fastened to an overhead wire for rigidity.

When the network of wires and strings are used, they can be raised at the end of the crop and used again for the following crop.

VENTILATION

A light, buoyant atmosphere is the most desirable for chrysanthemums. During spring, summer, and early fall, the ventilators will be wide open most of the time. Side ventilation helps air circulation but is an open invitation to thrips, grasshoppers, and tarnished plant bugs if there are weeds in the vicinity of the greenhouse.

As cool weather develops, ventilation should be reduced somewhat but it is important that there is enough "air" to prevent mildew or Botrytis blight from developing because of high humidity.

HUMIDITY

In summer wetting walks to provide humidity is important but in cooler fall weather, this practice should be eliminated because of dangers of disease.

CUTTING FLOWERS

Most growers wait too long before cutting the stock. When the flowers are quite well developed in the greenhouse, they have reached their peak and will never be as satisfactory for the consumer as stock cut slightly on the "green" side. Because there are so many varieties, it is difficult to state hard and fast rules. However, spray types should be cut when the center flower is open and the surrounding flowers are reasonably well developed. If pollen sheds badly as it may on some singles, the stems should be cut before this occurs. Standard mums should be cut while there are still some petals developing in the center.

Never cut into hard wood because such stems may not absorb water satisfactorily. Even if slightly crushed with light blows from a hammer, some stems may fail to take up water, though this method is usually effective. The lower one-third of the foliage should be removed and the stems are placed in water. Warm water (80° to 100°F.) is desirable for rapid "soaking up" but the air temperature should be 45° to 50°F. After several hours they may be graded and packed.

GRADING

Although there are no universal grades for spray types, a 9 oz. bunch is the generally accepted size. Since most retailers do not favor bunches with less than five stems, growers often try and select uniform stems to make a bunch with five stems that weighs between 9 and 11 ounces. Where light weight stems are being bunched, it may be necessary to place as many as 10 to 12 together to meet the 9-ounce requirement. Eye appeal is a controlling factor in sales and there must be enough "flower area" in a bunch if it is to sell.

Standard chrysanthemums are generally sold loose, but if bunched, the larger sizes should be put together.

SHIPPING

Protection for bunches of the spray types can be obtained by wrapping each bunch with cellophane or wax paper. Tissue paper dries out the petals and should not be used. Standard mums should be cushioned by a roll of newspaper just back of the heads and a layer of wax paper underneath each row of flowers.

To prevent movement in the shipping box, the stems should be cleated or sewn to the bottom with heavy twine.

For insulation in cold weather, layers of newspapers have been used for years. Some of the newer insulating materials such as the Jiffy liner are more effective. In warm weather the stock can be cooled prior to packing, then kept cool by means of ice along with insulation.

DRY COLD STORAGE

Although chrysanthemums are well known for their long keeping quality, they mature most rapidly in water. By placing the bunches in dry storage at 31° to 33°F., the flowers may be held for several weeks. Conventional corrugated shipping boxes may be used and should be lined with wax paper or a polyethylene sheet. The bunches are laid in, covered over with the lining material, and the box is tied. Although not completely air tight, it is sufficient to reduce the exchange of oxygen and carbon dioxide so that the flowers will keep. Upon removal from the storage, the bottom inch of stem should be cut off, and the bunch placed in water at 80° to 100°F. for several hours to soak up. The air temperature should be 45° to 50°F.

Only the very best plant material should be stored since disease organisms will develop in storage even at the very low temperatures.

YEAR AROUND FLOWERING

Variety response groups

It is convenient to refer to varieties according to their response group which is the number of weeks that elapse from the time short days are started until flowering. The early varieties are the 7 and 8-week groups, midseason varieties are the 9, 10, and 11-week groups, and late varieties are the 12, 13, and 14-week groups.

The 7, 8, and 9-week varieties of spray types are

not recommended for flowering in January, February, and March because the sprays are too clubby. The use of the later varieties at this time insures better spray formation and greater production because the later varieties appear to tolerate low light intensities. The late varieties are not used in spring, summer, and fall because they do not tolerate high temperature.

SHADING FOR A SHORT DAY

The chrysanthemum will form and develop its flower buds when the length of day is 13½ hours or less. To obtain this condition, the plants are covered with black sateen or plastic cloth at 5 P.M. and this is removed at 7 to 8 A.M. This must be done daily when the natural day length is greater than 13½ hours until the flower buds on standard mums are the size of a nickel and spray types show color.

LIGHTING FOR A LONG DAY

If the plants are to be prevented from forming flower buds, it is necessary that they be lighted each night when the natural day length is short enough to cause flower buds to form. This can be accomplished by placing lights in suitable reflectors over individual benches as follows: 60-watt bulbs spaced 4 feet apart, 2 feet above the tops of the plants; or 100-watt bulbs spaced 6 feet apart, 2 to 3 feet above the tops of the plants. Where the entire house is to be equipped with lights, 300-watt reflector bulbs can be placed near the ridge or in wider hosues two lines should be installed. About 1½ watts of light will be needed per square foot of ground areas covered by the greenhouse.

Ten foot candles of light will prevent flower bud formation on all but the very earliest chrysanthemum varieties. The light installations described above will be adequate to provide 10 foot candles.

Actually the chrysanthemum is a long night rather than a short day plant so if the night is broken up or interrupted by light, flower buds won't form. Therefore, begin lighting at 10 P.M. for the number of hours indicated.

2 hours in August	5 hours in January
2½ hours in September	4 hours in February
3 hours in October	3 hours in March
4 hours in November	2 hours in April
5 hours in December	1½ hours in May

Controlling day length

The time to start and stop both lighting and shading is shown in the table below:

Variety Response Group	LIGHTING		SHADING	
	Start in fall on	Stop in spring on	Start in spring on	Stop in fall on
7 and 8-week	Aug. 1	May 25	April 10	Sept. 5
9 and 10-week	Aug. 7	May 12	March 25	Sept. 15
11 and 12-week	Aug. 20	May 1	March 10	Oct. 1
13 and 14-week	Sept. 1	April 15	Feb. 25	Oct. 15

TEMPERATURE

The night temperature must be at least 60°F. when short day conditions are started to form flower buds. In fact, a 62°F. night temperature is somewhat safer since there is considerable variation of the temperature in different parts of the greenhouse. In case the air around one or more beds is slightly cooler, the plants can be covered with black cloth and a heating pipe placed underneath to insure a high enough temperature. If it is possible to lower the temperature to 55° to 58°F. after the buds are clearly visible, quality will be improved though maturity will be slightly delayed.

In summer there will often be a delay in development caused by excessive heat under the black cloth. Some of this can be prevented by waiting until 7 P.M. before putting on the cloth and then removing it at the customary time in the morning. Fans are also helpful in bringing in cooler air under the cloth. When the night temperature reaches 85° or 90°F. under the cloth for as little as one hour, delay can be expected. When the 13 and 14-week varieties are used, delay of flowering is common at a night temperature of 65°F.

Pink, bronze, and red varieties generally fade quite badly if flowered from June to September and except

for certain varieties their use at this period is not recommended. Burning of the petals of some of the soft varieties can be prevented in hot, bright weather by placing cheesecloth about 2 feet above the flowers.

SPACING

The more space a stem is given, the larger and heavier will be the spray or the size of the flower. Overdoing space will result in such large pompon sprays that retailers may not buy them. Therefore, a 6 x 4 inch spacing for spray types and 6 x 5 inch spacing for standards is suggested when the no pinch schedule is to be used. It is possible that even closer spacing can be used to advantage; much depends on how much sunlight the plants receive and the market preference.

GENERAL SUGGESTIONS

The growth of the plants must never be checked if a schedule is to be followed. Therefore, thorough attention must be given to soil preparation, fertilizers, watering, etc., so that there will be no delay in growth. The general cultural practices of disbudding, cutting, etc., are the same as with chrysanthemums flowered at their normal time.

Potted Chrysanthemums

Improved cultural practices have revived the popularity of potted mums and today they are available on a year around basis. More than anything else, their good keeping quality has contributed to their success.

Today's methods are centered around rapid, unchecked growth and 90 to 100 days is about the average length of time for production of quality pot mums.

SOIL

Rapid development of the plants can only be obtained if the soil mixture is ideal. Incorporating 1/4 to 1/3 rotted manure or peat moss or a combination of the two is about the best method of getting a soil that is porous and well drained yet will hold adequate moisture. Steam sterilization is the best method of combatting insect pests, diseases, weeds, and weed seeds.

FERTILIZERS

As soon as the roots begin to develop along the pot wall, it is time to begin fertilizing. This will be about a week after potting if conditions are right. Because the plants will be watered so frequently, the use of a complete fertilizer every 7 days is advised. Whether the fertilizer is applied dry or liquid makes no difference but liquid applications are much faster. Fertilization should continue until the plants are ready for sale.

WATERING

After the plants become established and considerable foliage develops, they will require frequent watering. In summer it may be necessary to water them three times a day depending upon the temperature and size of the plants. This is so because the plants are usually grown with no shade on the glass. When the flowers are opening and the plants are almost mature, over-watering will kill the roots and it is at this time that good judgment be used in applying water.

TEMPERATURE

Uniform formation of flower buds is best obtained

by keeping the night temperature at 65°F. when short days are started. After buds are visible the temperature can be lowered to 60° to 62°F. Too low a night temperature causes uneven formation of flower buds or blindness on some shoots.

In very hot summer weather delay in development is common. At this time of year yellow and white varieties should be grown because most pink, red, or bronze types fade badly.

DISBUDDING

The greatest demand is for the large sized flowers, therefore, each stem should be disbudded to one flower. Don't start disbudding until most of the shoots have buds large enough to handle easily; otherwise if you disbud only a stem or two at a time, the shoots disbudded first will flower too far ahead of those disbudded later.

PINCHING

Although the single pinch system is universally used, occasionally no pinch is employed and for very large plants the double pinch system is best.

No pinch — the main advantage is larger flowers on varieties like the Indianapolis group. From 6 to 9 cuttings are placed in a 6-inch azalea pot and short days are started about 7 days after potting.

Single pinch — this is used by most growers because it is fast and the size of the specimens will satisfy most demands. Five or 6 cuttings are placed in a 6-inch azalea pot and the plants are pinched 7 days after potting. Pinch relatively soft—if pinched too low, there will be fewer breaks. The plants should be shaded the same day they are pinched. In very dark weather the plants may be too short and this can be overcome by lighting for 7 days after pinching, then starting short day treatment.

Double pinch — for large specimen plants this system is preferred. Plant 3 or 4 cuttings in a 6-inch azalea pot and soft pinch after 7 days. Then after 3 weeks pinch again so that only 3 leaves remain on each stem. Start short days at the time of the second pinch.

SPACING

The plants can be grown pot to pot in the early stages but as they develop, the pots must be spaced or the plants will stretch. Not only does spacing prevent legginess but also it allows room for the lower shoots to "round out" the plant.

GARDEN VARIETIES

For April and May a number of garden varieties can be grown and after the flowers have withered, the plants can be cut back, separated, and planted in the garden where they will flower again in the fall. Producing these is quite simple since lights and shade are not needed. Five cuttings from lighted stock plants are placed in a 5 or 6-inch pot anytime between February 1 and March 1. Allow to grow 7 days, then pinch. The days will be short enough so that no black cloth is

necessary. The temperature must be 65°F. until flower buds are visible, then it may be dropped between 55° and 60°F. Most of the garden varieties are 7 and 8-week types and will flower in about 60 days from the pinch date. Flowers on these garden types are not as large as the regular mum varieties so they should not be disbudded.

SMALL POT MUMS

There is ever increasing interest in the flowering of chrysanthemums in 3-inch standard or 3½-inch azalea pots. They are very useful for combination or mixed pots which are an important part of spring bedding plant sales in many parts of the country. In addition there is some interest in selling these as small plants for home decoration in place of the larger sizes.

Immediately after potting, the plants should be soft pinched and short day treatment started. By doing this the plants are kept short—in proportion to the small pot. Many of the 7, 8, 9, 10, and 11-week varieties will be suitable for combination pots, but only the shorter kinds are suitable as plants for the home.

Pest Control

To produce quality chrysanthemums one must always be looking for insects and diseases since a crop can be seriously damaged or completely ruined in a relatively short time. The common insects, diseases and allied pests are briefly described and up-to-date control measures are presented.

INSECTS AND ALLIED PESTS

Aphids

These are usually black or green and are found on the young tender growth. They multiply very rapidly and when they get in the unfolding leaves at the shoot tip, they are very difficult to completely eradicate.

Dithio, Malathion, or Parathion bombs are quite effective. Malathion, Lindane, or Parathion dusts or sprays can also be used. The systemic insecticides applied to the soil are relatively slow to act but are highly recommended.

CHRYSANTHEMUM MIDGE

Galls are formed on the leaves and stems and they are about ¼ inch long and very prominent. DDT or Parathion dusts or sprays will control this pest if several applications are made to keep the new growth covered.

CUTWORMS

These may be quite troublesome at the time of flowering. They are most active at night and may escape detection until serious damage has been done. DDT, Parathion, and Chlordane are effective for combatting this pest.

CYCLAMEN MITE

When the leaves at the stem tip are distorted and growth almost ceases, it is usually indicative that mites are present. They are too small to be seen without the aid of a strong magnifying glass. Parathion sprays directed into the stem tips is an effective control as are the systemic insecticides.

FOLIAR NEMATODE

This is a relative of the root-knot nematode but it inhabits the aerial portions of the plant. It moves from leaf to leaf through films of moisture and the damage appears as wedge shaped brown areas between the veins of the leaf. The leaf or foliar nematode is too small to be seen except with the aid of a microscope.

Keeping the foliage dry prevents their spread but may not be a practical means of control. Parathion sprays are best but several applications are necessary.

GRASSHOPPERS

Chlordane, Aldrin, or Dieldrin are highly effective.

LEAF MINER

These are small insects which feed inside the leaf tissues and as they travel within, a light greenish-yellow colored area is very noticeable. Parathion dusts or sprays or systemic insecticides are effective.

LEAF ROLLER

The worms or caterpillars which feed on the underside of the foliage leaving a transparent film of the upper surface of the leaf is indicative that leaf tiers or rollers are present. DDT, Malathion, or Parathion are useful if applied before the insect rolls the leaves together to form a cocoon.

MEALYBUGS

Although the damage they cause is minor, the masses of grayish white bugs are unsightly. The natural protective hairy covering makes control of the older mealybugs quite difficult. Young ones are killed by repeated use of Parathion, Dithio, or Malathion.

RED SPIDER

The mottled condition of the foliage is too well known to require further description. Many insecticides have been made to combat this pest and the use of more than one kind is suggested to avoid development of "resistant" strains.

Aramite, Malathion, Parathion, Chlorobenzilate, and

TEPP sprays are all quite effective. In aerosol form Parathion and Dithio can be used. The systemics are also valuable but are somewhat slow acting.

SLUGS, SNAILS

Chlordane in which metaldehyde is used as an attractant is effective.

SOWBUGS

Sometimes called pillbugs, these pests chew stems on young plants. DDT is effective.

SYMPHYLIDS

The root system of plants is chewed by these pests and growth is severely checked. They are white to light tan, about 1/4 inch long, with two prominent antennae or feelers on their head. They move quite rapidly when disturbed and will dart back into soil crevasses if exposed to the light. A Lindane soil drench using 1 oz. of wettable powder to 30 gal. water which is applied to 100 sq. ft. of bench area is effective. In raised benches, steaming will control them, but since they move downward it is not an effective control in ground beds. The Lindane treatment will last about one year.

SPITTLE BUGS

A frothy mass resembling spit is the hiding place of

this small greenish colored insect. Lindane dusts or sprays will control it.

TARNISHED PLANT BUGS

These pests sting the growing tips which wilts and often abnormal branching is noted. Affected shoots seldom flower. DDT or Parathion in dust or spray form will control this pest but must be applied regularly.

TERMITES

Roots or stems may be "hollowed out" from attacks of this pest. No control is possible in this stage other than destruction of the plants. Termite swarms can be killed by Lindane or Chlordane dusts or sprays.

THRIPS

There are several types which attack the leaves and flowers at various times of the year. A short silvery colored streak is indicative that thrips are attacking the leaves and on petals the color may be brown. Lindane, Malathion, DDT, Parathion, Aldrin, and Dieldrin are all quite useful.

WHITE FLY

The injury is minor but their presence is undesirable. Either Parathion or DDT will eradicate them.

Diseases

BACTERIAL STEM ROT

In warm weather a rot in the central portion of the stem beginning at the base will often cause heavy losses. It is most pronounced when the soil is kept unduly moist. Steaming the soil is the best means of control. Affected plants should be removed and destroyed.

BOTRYTIS

A rot of the petals, particularly on the softer varieties, is usually caused by the fungus organism known as Botrytis or gray mold. The affected area appears water-soaked.

Growth of the organism is favored by high humidity, therefore, air circulation is an important means of control. Use of heat lines when temperatures warrant or fans to move the air are two means of preventing growth of Botrytis. Dusting with Parzate or Zerlate is also useful. Burn caused by high light intensity may appear similar, but it occurs in bright weather, and at that time Botrytis is usually not a problem.

DODDER

This parasitic plant grows rather freely on chrysanthemums and can over-run the crop in a relatively short time. Dodder seed lives over winter in the soil and after germination, slender yellow-orange colored threads twine around the foliage and stems and obtain their food from the chrysanthemum.

Steaming soil will kill the seed. If dodder is found, all traces of it must be removed either by hand picking or destroying the mums or it will become a very serious pest.

MILDEW

The familiar white powdery appearance of the upper surface of the leaf is indicative that mildew is present. Occasionally stems will be affected. Mildew spores germinate and grow best in high humidity so air circulation by means of heat, ventilation, and fans will pre-

vent or control it. Sulfur is effective but will bleach flowers. Mildex is also useful.

ROOT-KNOT NEMATODE

As the name implies, small knots are found on the root system; affected plants will lack vigor. There is no control other than destroying the plants and steaming the soil.

RUST

Small raised areas or blisters appear on the leaves or stems and when these break open, brown spores are released. Splashing water spreads this organism, so keeping the foliage dry and applications of Fermate, Zerlate, or Parzate are recommended controls.

SEPTORIA BLACK SPOT

Irregular black spots or blotches appear on the foliage particularly when moisture is present. The use of Captan, Fermate, Zerlate, or Parzate sprays will control this disease organism.

STEM ROT

Loss of plants from this trouble is common if the cuttings are planted too deep, overwatered, or too heavy a soil is used. Drenching the soil with a Fermate solution (1lb. per 100 gal.) will kill the organism at the soil surface. Shallow planting is recommended.

STUNT

Once greatly feared, this virus is now not a serious problem. Indexing stock or carefully selecting cuttings from presumably healthy plants are the control measures that have been used.

VERTICILLIUM WILT

Though this fungus organism never kills the plant, it causes loss of foliage and vigor so the cut flowers are usually rendered unsalable. The organism lives in the soil and the plant, so steaming plus the use of cultured cuttings will insure a minimum of losses.

A.B.C. Supreme Quality Rooted Cuttings

SCHEDULE OF OPERATIONS FOR POT MUMS THE YEAR AROUND

Date of last pinch and start of short days	Date of flowering for			Date of last pinch and start of short days	Date of flowering for		
	9-week varieties	10-week varieties	11-week varieties		9-week varieties	10-week varieties	11-week varieties
Jan. 3	Mar. 7	Mar. 14	Mar. 21	July 4	Sept. 5	Sept. 12	Sept. 19
Jan. 10	Mar. 14	Mar. 21	Mar. 28	July 11	Sept. 12	Sept. 19	Sept. 26
Jan. 17	Mar. 21	Mar. 28	April 4	July 18	Sept. 19	Sept. 26	Oct. 3
Jan. 24	Mar. 28	April 4	April 11	July 25	Sept. 26	Oct. 3	Oct. 10
Jan. 31	April 4	April 11	April 18	Aug. 1	Oct. 3	Oct. 10	Oct. 17
Feb. 7	April 11	April 18	April 25	Aug. 8	Oct. 10	Oct. 17	Oct. 24
Feb. 14	April 18	April 25	May 2	Aug. 15	Oct. 17	Oct. 24	Oct. 31
Feb. 21	April 25	May 2	May 9	Aug. 22	Oct. 24	Oct. 31	Nov. 7
Feb. 28	May 2	May 9	May 16	Aug. 29	Oct. 31	Nov. 7	Nov. 14
Mar. 7	May 9	May 16	May 23	Sept. 5	Nov. 7	Nov. 14	Nov. 21
Mar. 14	May 16	May 23	May 30	Sept. 12	Nov. 14	Nov. 21	Nov. 28
Mar. 21	May 23	May 30	June 6	Sept. 19	Nov. 21	Nov. 28	Dec. 5
Mar. 28	May 30	June 6	June 13	Sept. 26	Nov. 28	Dec. 5	Dec. 12
April 4	June 6	June 13	June 20	Oct. 3	Dec. 5	Dec. 12	Dec. 19
April 11	June 13	June 20	June 27	Oct. 10	Dec. 12	Dec. 19	Dec. 26
April 18	June 20	June 27	July 4	Oct. 17	Dec. 19	Dec. 26	Jan. 2
April 25	June 27	July 4	July 11	Oct. 24	Dec. 26	Jan. 2	Jan. 9
May 2	July 4	July 11	July 18	Oct. 31	Jan. 2	Jan. 9	Jan. 16
May 9	July 11	July 18	July 25	Nov. 7	Jan. 9	Jan. 16	Jan. 23
May 16	July 18	July 25	Aug. 1	Nov. 14	Jan. 16	Jan. 23	Jan. 30
May 23	July 25	Aug. 1	Aug. 8	Nov. 21	Jan. 23	Jan. 30	Feb. 6
May 30	Aug. 1	Aug. 8	Aug. 15	Nov. 28	Jan. 30	Feb. 6	Feb. 13
June 6	Aug. 8	Aug. 15	Aug. 22	Dec. 5	Feb. 6	Feb. 13	Feb. 20
June 13	Aug. 15	Aug. 22	Aug. 29	Dec. 12	Feb. 13	Feb. 20	Feb. 27
June 20	Aug. 22	Aug. 29	Sept. 5	Dec. 19	Feb. 20	Feb. 27	Mar. 5
June 27	Aug. 29	Sept. 5	Sept. 12	Dec. 26	Feb. 27	Mar. 5	Mar. 12

POT PLANT VARIETIES

Variety	Last pinch	Flowering date	Variety	Last pinch	Flowering date
WHITE			BRONZE AND RED		
8-week			9-week		
Christina	August 30	October 23	Dalwin	August 30	October 25
9-week			Antique	September 13	November 1
Granite State	August 30	October 25	Apricot Queen	September 13	November 1
Queens Lace	September 13	November 1	Royal Bronze	September 13	November 1
Wilson's White	August 30	November 1	10-week		
10-week			Indianapolis Bronze	September 13	November 5
Indianapolis White	September 13	November 5	Delaware	September 13	November 8
Richard Mandel	September 6	November 5	Barbara Fuller	September 13	November 10
11-week			Copperhead	September 13	November 10
Little America	September 13	November 10	Firegleam	September 13	November 10
12-week			Red King	September 13	November 13
White Lady	September 20	November 25	Cadet	September 13	November 14
YELLOW			PINK		
8-week			8-week		
Arlora	August 30	October 15	Major Bowes	August 30	October 20
Gold Lode	August 30	October 15	9-week		
Sundew	August 30	October 15	Bluechip	August 30	November 1
Butterball	August 30	October 20	10-week		
Blazing Gold	August 30	October 23	Indianapolis Pink	September 13	November 5
9-week			Criterion	September 6	November 8
Ordalia	August 30	October 25	Portrait	September 6	November 8
Starlight	August 30	October 25	Cover Girl	September 6	November 10
Gold Lace	September 13	November 1	Humdinger	September 6	November 10
Hooked Yellow Lace	September 13	November 1	Queen of Pinks	September 6	November 10
Yellow Lace	September 13	November 1	Thyra	September 6	November 10
10-week			11-week		
Improved Ind. Yellow	September 13	November 5	Polka	September 13	November 20
Indianapolis Yellow	September 13	November 5	Illini Formal	September 13	November 23
Dark Indianapolis Yellow	September 13	November 5	12-week		
11-week			Beautiful Lady	September 20	November 25
Bonnafon Deluxe	September 13	November 20			

Schedule of Operations for Unpinched Chrysanthemums at Any Season

Plant rooted cuttings*	Light beginning	Shade or start short days beginning**								Date of flowering
		For 7-week var.	For 8-week var.	For 9-week var.	For 10-week var.	For 11-week var.	For 12-week var.	For 13-week var.	14-week var.	
Jan. 14	Jan. 14		Mar. 10	Mar. 3	Feb. 25	Feb. 18				May 5
Jan. 21	Jan. 21	Mar. 24	Mar. 17	Mar. 10	Mar. 3					May 12
Feb. 4	Feb. 4	Mar. 31	Mar. 24	Mar. 17	Mar. 10					May 19
Feb. 11	Feb. 11	Apr. 7	Mar. 31	Mar. 24	Mar. 17					May 26
Feb. 25	Feb. 25	Apr. 14	Apr. 7	Mar. 31	Mar. 24					June 2
Mar. 3	Mar. 3	Apr. 21	Apr. 14	Apr. 7	Mar. 31					June 9
Mar. 17	Mar. 17	Apr. 28	Apr. 21	Apr. 14	Apr. 7					June 16
Mar. 24	Mar. 24	May 5	Apr. 28	Apr. 21	Apr. 14					June 23
Mar. 31	Mar. 31	May 12	May 5	Apr. 28	Apr. 21					June 30
Apr. 7	Apr. 7	May 19	May 12	May 5	Apr. 28					July 7
Apr. 14	Apr. 14	May 26	May 19	May 12	May 5					July 14
Apr. 21	Apr. 21	June 2	May 26	May 19	May 12					July 21
Apr. 28	Apr. 28	June 9	June 2	May 26	May 19					July 28
May 5	May 5	June 16	June 9	June 2	May 26					Aug. 4
May 12		June 23	June 16	June 9	June 2					Aug. 11
May 19		June 30	June 23	June 16	June 9					Aug. 18
May 26		July 7	June 30	June 23	June 16					Aug. 25
June 2		July 14	July 7	June 30	June 23					Sept. 1
June 9		July 21	July 14	July 7	June 30					Sept. 8
June 16		July 28	July 21	July 14	July 7					Sept. 15
June 16		Aug. 4	July 28	July 21	July 14					Sept. 22
June 23		Aug. 11	Aug. 4	July 28	July 21	July 14				Sept. 29
June 30		Aug. 18	Aug. 11	Aug. 4	July 28	July 21				Oct. 6
June 30			Aug. 18	Aug. 11	Aug. 4	July 28	July 21			Oct. 13
July 7				Aug. 18	Aug. 11	Aug. 4	July 28			Oct. 20
July 14				Aug. 25	Aug. 18	Aug. 11	Aug. 4	July 28		
July 14					Aug. 25	Aug. 18	Aug. 11	Aug. 4		Nov. 3
July 21					Sept. 1	Aug. 25	Aug. 18	Aug. 11	Aug. 4	Nov. 10
July 28					Sept. 8	Aug. 25	Aug. 18	Aug. 11	Aug. 11	Nov. 17
July 28					Sept. 15	Sept. 8	Sept. 1	Aug. 25	Aug. 18	Nov. 24
Aug. 4	Aug. 4				Sept. 22	Sept. 15	Sept. 8	Sept. 1	Aug. 25	Dec. 1
Aug. 11	Aug. 11				Sept. 29	Sept. 22	Sept. 15	Sept. 8	Sept. 1	Dec. 8
Aug. 11	Aug. 11				Oct. 6	Sept. 29	Sept. 22	Sept. 15	Sept. 8	Dec. 15
Aug. 18	Aug. 18				Oct. 13	Oct. 6	Sept. 29	Sept. 22	Sept. 15	Dec. 22
Aug. 25	Aug. 25				Oct. 20	Oct. 13	Oct. 6	Sept. 29	Sept. 22	Dec. 29
Aug. 25	Aug. 25				Oct. 27	Oct. 20	Oct. 13	Oct. 6	Sept. 29	Jan. 5
Sept. 1	Sept. 1				Nov. 3	Oct. 27	Oct. 20	Oct. 13	Oct. 6	Jan. 12
Sept. 8	Sept. 8				Nov. 10	Nov. 3	Oct. 27	Oct. 20	Oct. 13	Jan. 19
Sept. 15	Sept. 15				Nov. 17	Nov. 10	Nov. 3	Oct. 27	Oct. 20	Jan. 26
Sept. 22	Sept. 22				Nov. 24	Nov. 17	Nov. 10	Nov. 3	Oct. 27	Feb. 2
Sept. 29	Sept. 29				Dec. 1	Nov. 24	Nov. 17	Nov. 10	Nov. 3	Feb. 9
Oct. 6	Oct. 6				Dec. 8	Dec. 1	Nov. 24	Nov. 17	Nov. 10	Feb. 16
Oct. 13	Oct. 13				Dec. 15	Dec. 8	Dec. 1	Nov. 24	Nov. 17	Feb. 23
Oct. 20	Oct. 20				Dec. 22	Dec. 15	Dec. 8	Dec. 1	Nov. 24	Mar. 2
Oct. 27	Oct. 27				Dec. 29	Dec. 22	Dec. 15	Dec. 8	Dec. 1	Mar. 9
Nov. 3	Nov. 3				Jan. 5	Dec. 29	Dec. 22	Dec. 15	Dec. 8	Mar. 16
Nov. 10	Nov. 10				Jan. 12	Jan. 5	Dec. 29	Dec. 22	Dec. 15	Mar. 23
Nov. 17	Nov. 17				Jan. 19	Jan. 12	Jan. 5	Dec. 29	Dec. 22	Mar. 30
Dec. 1	Dec. 1				Jan. 26	Jan. 19	Jan. 12	Jan. 5		Apr. 6
Dec. 8	Dec. 8				Feb. 2	Jan. 26	Jan. 19	Jan. 19		Apr. 13
Dec. 22	Dec. 22			Feb. 16	Feb. 9	Feb. 2	Jan. 26			Apr. 20
Dec. 29	Dec. 29			Feb. 23	Feb. 16	Feb. 9	Feb. 2			Apr. 27

*For a pinched crop, pinch on this date and plant as indicated below:—

When planting Nov. 15 to Feb. 14, allow 5 weeks from planting to pinching.

When planting Feb. 15 to May 14, allow 4 weeks from planting to pinching.

When planting May 15 to Aug. 14, allow 3 weeks from planting to pinching.

When planting Aug. 15 to Nov. 14, allow 4 weeks from planting to pinching.

**No need to use black cloth between September 1 and February 15 unless lights are used in the same house.

DESCRIPTIONS OF NEW 1955 INTRODUCTIONS

VESTA Oct. 25. (De Petris) A trim White button Pompon for summer and early fall flowering. Best during the long day period of the year June thru August.

CREAM HALO Nov. 1. (Avon Valley) Excellent cream colored sport of Halo with the same recommended season of flowering as Halo.

CREAM SHASTA Nov. 10. (Delworth) Beautiful color addition to the Shasta group for year round flowering.

WHITE MEMORIAL Nov. 12. Pure white sport except when grown cold. Fine May to November.

WHITE TAFFETA Nov. 15. (Knouse & Cruden) Pure white sport of Taffeta.

ILLINI STARFLOWER Nov. 18. (Univ. of Ill.) Semi-anemone form. A Novelty in white for the retail grower.

SILVERCREST Nov. 25. Small white formal pompon. Markedly improves the appearance and quality of Snowcrest. Well adapted for flowering November thru March.

ILLINI PEACE Nov. 25. (Univ. of Ill.) A productive White anemone for Thanksgiving.

ORWAY Dec. 8 (De Petris) Large white single. An improvement over Yukon in flower quality and growth habit.

WHITE SNOWDROP Dec. 8. Pure white sport of Snowdrop.

GOLDFINCH Oct. 25 (De Petris) Small yellow golden button pompon with excellent flower quality. Withstands high temperature well. An outstanding competitor of the variety Sunup for spring, summer and fall flowering.

IMAMURA YELLOW Oct. 25. Intermediate yellow daisy for early cloth house.

YELLOW SCULPTURE Nov. 15. (Avon Valley) Lemon yellow sport of Sculpture, as valuable in the year-round program as Sculpture itself.

MINGO CHIEF Nov. 20. (Brehmer) Bronzy yellow anemone best described as a yellow Yolanda but with a stronger growth habit and heavier production.

GOLD MEDAL Dec. 1. Small yellow button pompon for October to April flowering.

YELLOW COTILLION Dec. 5. Lemon Yellow sport of Cotillion.

YELLOW SATELITE Dec. 10. Yellow sport of SateLite.

GOLDIE Dec. 10. Deep yellow small pompon. Preferred by some over Yellow Snowcrest.

JETFIRE Nov. 5. Intermediate flaming red decorative. A color that holds even in high temperatures. Well adapted for spring and fall pot plants grown either as spray or disbud. Outstanding in the cloth house.

FIREGLEAM Nov. 10. A fiery orange intermediate decorative. An outstandingly brilliant color that holds beautifully. Is fine in pots with partial or no disbudding.

BRONZE PANDORA Nov. 10. (Smith) Bright coral bronze sport of Pandora.

BARBARA FULLER Nov. 10. (Fairfield) A dark coral red anemone. Dwarf compact growth habit. Excellent for flowering as a pot plant in October, November and December.

RUBAIYAT Nov. 20. Velvety red intermediate formal pompon. Unequaled for October thru Christmas flowering. Improves Christmas Greeting in color, for and production.

DK. BRONZE MINUET Nov. 23. A rich deep salmon bronze sport of Br. Minuet.

RED HERITAGE Dec. 1. Salmon red sport of Heritage.

ORANGE GALAXY Dec. 1. A color sport of Galaxy. Color very nearly that of Orange Beauregard.

RED MINSTREL Dec. 13. (Delworth) A sport of Bronze Minstrel with a lively red glow added. This color is easier to use than that of Br. Minstrel. A quality pompon for November and December.

TSUKUSHI PINK Oct. 20. Intermediate light pink single for the very early cloth house.

PARISIENNE Nov. 5. (Delworth) Intermediate shell pink single. This variety grows and flowers satisfactorily at all seasons where Shasta is satisfactory (late March to November). The color is a close to true pink as exists in the chrysanthemum. The favorite pink single to rotate with Brocade and a color far better than that of Reward.

CRITERION Nov. 8. Int. pink decorative with a vigorous compact growth habit. A New and valuable year round pink pot plant variety. Almost the equal of Bonnafon DeLuxe in pink. Also a fine cut flower variety for spring and fall. Best grown disbudded.

HUMDINGER Nov. 10. An intermediate to large formal pompon. Color has been described as a luminous violet purple. A perfectly ideal pot plant type of growth habit. An interesting disbud pot plant for fall, winter and early spring.

DK. PINK MINUET Nov. 23. A deep pink sport of Minuet.

IMP. PK. MINSTREL Dec. 13. (Delworth) From a designers and retailers standpoint, this is the best of the Minstrels. Its color resembles that of Pink Dot and it does not deteriorate rapidly with maturity. The shade and tone are both right. Minstrel had form and substance. Imp. Pk. Minstrel has form, substance and color.

LYNDA MC LANE Dec. 25. (McLane) A late pink pompon with a growth habit that does not run into blind growth and a color that is highly acceptable. A much needed variety for the late natural crop.

SILVER QUEEN Oct. 25. (De Petris) White Fugi mum. Better than Rayonnante. Important in the spring and fall program.

WHITE MARY GARDEN Nov. 1. White sport of Mary Garden.

SMITHS CREAM WHITE Dec. 13. (Schneider) A beautiful smooth cream colored sport of Smiths White. Excellent form and good depth of flower.

LUYONA Oct. 25. (De Petris) Large yellow spider mum with quality blooms.

YELLOW IVANHOE Nov. 1. Golden yellow sport.

YELLOW CURLY SPIDER Nov. 5. Clear yellow spider mum. Good shipper.

ANTIQUE Nov. 1. A bronze spider mum for cut flower and pot plant use.

DELAWARE Nov. 8. A large semi-incurved reddish bronze standard. An outstanding pot plant for fall, winter and spring. The growth habit and the color make this the number one bronze pot plant.

MRS. EISENHOWER Nov. 18. (De Petris) A vivid golden bronze spider mum with excellent substance and form. Vigorous grower.

ILL. REGAL An unusual royal purple pompon which is quite striking. A very novel color. Maturing around November 12. It is a pompon of good form.

ILL. SPRINGTIME A warm rich truly pink single of good shipping qualities. Flowers are placed well on the stem. Hard to beat in its class for year round production. Matures November 12.

ILL. WAMPUM An attractive bright yellow anemone with unusually high production. Very stiff stems supporting a well placed flower head. Matures November 22.

WEDDING BELLS (DEPTRIS) An intermediate white pompon with bright green eye. Flowers have outstanding substance and are produced on well formed sprays with rigid pedicles. A very useful 13 week variety for extending the season. Flowers normally around Dec. 5.

SNOWFLAKE (DePETRIS) A free growing intermediate white pom with cream center good form and spray formation. Exceptionally good shipping qualities. Its uniform response makes this a very valuable variety for extending the season through February. Matures Dec. 5.

RED ENCHANTRESS (KAWACHI) A vivid red sport of Enchantress which will make a valuable addition to the 13 week class. Should be very useful for extending through the Christmas holidays and later. Matures Dec. 5.

YELLOW ENCHANTRESS (KAWACHI) A lemon yellow sport of Enchantress, responds uniformly to lights and can be used December through February for extended blooming. Matures Dec. 5.

NEW GARDEN VARIETIES 1955

CRYSTAL MAID A creamy white pompon flowering September 12. Very compact growth with an abundance of showy flowers. Another good addition to spring garden pots or as a showy border plant.

GARDENIA Large white decorative type blooms with creamy white center. Flowers are very double measuring $3\frac{1}{2}$ " or more in diameter. A very profuse blooming variety combining extreme vigor and strong stems with excellent foliage. An outstanding large white mum blooming September 25. Possessing beautiful large form and a sturdy semi-dwarf growth habit. An outstanding garden mum.

ALPENA Glowing red large pompon type garden mum blooming about September 25th. Blooms are full double possessing very good substance. They are carried on erect sprays on bushy medium dwarf plants with very good foliage. An excellent red early garden mum derived from the Rubellum strains which combines good color with vigor and hardiness.

IRON MOUNTAIN An intriguing deep red pompon changing to a reddish rust as the flower matures. A plant that can easily be displayed well as a showy border or useful as a home cut flower. Matures around October 1.

SPODE A very perfectly incurved flower attaining a size of 4" when disbudded. Blooms are very full and round. The color is clear luminous yellow. Compact bushy habit with strong upright stems. A very free flowering large mum suitable for garden or pots either Fall or Spring. Normal blooming date is the first week in October. Its large round yellow blooms and compact bushy habit makes this variety an ideal pot mum.

NORTHERN QUEEN Large double flowered pink decorative variety with center shading to deep pink. A very durable and lasting flower. Sturdy medium dwarf growth habit with very strong stems. Beautiful shiny glossy foliage reflecting its Arctic heritage. An excellent large pink garden mum which blooms the first week in October.

SONNY A true pink clean growing pompon that shades well in the Cloth House and holds its color. Stiff stems with rigid pedicles. Makes a fine addition to the garden variety cut flower class. Matures October 1.

HONEYSWEET Early large golden yellow incurved. Can be flowered early enough for the garden. Will make a full compact pot plant which appears to be heat tolerant under the shade cloth. Matures October 15.

VALIANT Large light yellow incurved flowering October 15. Luxuriant dark green foliage with short internodes. Makes an attractive pot plant mid March to January.

GOLDFINCH Vigorous growing solid type pompon producing lively looking flower heads on clean sturdy stems. Better than average in its production. Flowers October 15.



One of many houses devoted to the production of cultured Mum cuttings.

A.B.C. Supreme Quality Rooted Cuttings

White Pompoms, Decoratives Singles & Anemones

Variety	Normal Pinch Date	Flowering Date	Description	Price Classification
6 Week Varieties				
Ostosa	June 20	Sept. 25	Int. Pompon	P-1
Sept. Morn	June 24	Oct. 1	Int. Single	S-1
White Wonder	June 24	Oct. 1	Int. Pompon	S-1
Chris. Columbus	June 24	Oct. 1	Int. Decorative	S-3
7 Week Varieties				
Avalanche	June 24	Oct. 5	Large Decorative	S-1
White Cloud	June 24	Oct. 5	Large Decorative	S-1
Horizon	June 24	Oct. 5	Int. Pompon	S-2
Marshmallow	June 24	Oct. 5	Int. Single	P-2
Maestro	June 24	Oct. 10	Int. Pompon	S-1
Renown	June 24	Oct. 10	Small Single	S-1
Classic	June 24	Oct. 10	Int. Pompon	S-2
Silverplate	June 24	Oct. 12	Int. Decorative	S-2
8 Week Varieties				
Silver Ball	July 10	Oct. 15	Large Pompon	S-4
Calif. White Daisy (Kimoto's White)	July 10	Oct. 15	Int. Single	S-2
Irene	July 10	Oct. 15	Small Pompon	S-2
Norona	July 10	Oct. 15	Small Pompon	S-2
Pristine	July 10	Oct. 20	Int. Pompon	S-3
Minong	July 10	Oct. 20	Small Pompon	S-1
Silvertone	July 15	Oct. 24	Int. Single	P-2
9 Week Varieties				
Vesta	July 15	Oct. 25	Button Pompon	P-1
Popcorn	July 15	Oct. 25	Int. Pompon	S-3
White Popcorn	July 15	Oct. 25	Int. Pompon	S-2
Keepsake	July 15	Oct. 25	Int. Pompon	S-2
Pinocchio	July 15	Oct. 25	Small Pompon	S-3
Songster	July 15	Oct. 25	Int. Pompon	S-3
Cottontop	July 20	Oct. 25	Small Pompon	S-1
Shooting Star	July 20	Oct. 25	Int. Single	S-1
*Granite State	July 15	Oct. 25	Small Semi Incurved	S-3
Arcadia	July 20	Oct. 28	Int. Pompon	S-2
Silver Cloud	July 20	Nov. 1	Int. Single	P-2
Halo	July 20	Nov. 1	Int. Single	S-3
Cream Halo	July 20	Nov. 1	Daisy	P-1
Sea Gull	July 20	Nov. 1	Int. Pompon	S-3
White Doty	July 20	Nov. 1	Large Pompon	S-3
10 Week Varieties				
Freedom	July 20	Nov. 5	Int. Single	P-2
Whitetop	July 20	Nov. 5	Int. Decorative	P-2
Madonna	July 20	Nov. 5	Int. Pompon	S-2
Kolowa	July 20	Nov. 5	Int. Single	S-1
Encore	July 20	Nov. 5	Int. Pompon	S-4
White Anemone	July 20	Nov. 5	Large Anemone	S-2
White Mensa	July 20	Nov. 5	Large Single	S-2
Rev. Bushnell	July 19	Nov. 8	Int. Pompon	S-2
Moonglow	July 20	Nov. 8	Int. Pompon	S-2
**Pacesetter	July 20	Nov. 10	Int. Single	P-2
Illini Igloo	July 20	Nov. 10	Int. Pompon	P-3
Shasta	July 20	Nov. 10	Large Anemone	S-4
Cream Shasta	July 20	Nov. 10	Anemone	P-1
Dynamo	July 20	Nov. 10	Int. Pompon	S-2
Vesper	July 20	Nov. 10	Int. Pompon	S-2
Nagona (Calif. White Mensa)	July 20	Nov. 10	Int. Single	S-1
**Little America	July 20	Nov. 10	Int. Anemone	S-3
Illini Snowdrift	July 20	Nov. 12	Novelty-Int. Decorative	S-3
Matchless	July 22	Nov. 12	Int. Pompon	S-2
White Memorial	July 22	Nov. 12	Int. Anemone	S-1
Wh. Frieda	July 22	Nov. 15	Anemone	S-3
White Taffeta	July 22	Nov. 15	Int. Decorative	P-1
11 Week Varieties				
Sculpture	July 22	Nov. 15	Large Single	S-2
White Norma	July 22	Nov. 15	Large Anemone	S-2
Eskimo	July 22	Nov. 15	Int. Single	S-1

**Also recommended for Pot Plants

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White Pompoms, Decoratives Singles & Anemones

Variety	Normal Pinch Date	Flowering Date	Description	Price Classification
11 Week Varieties				
Snowflurry	July 22	Nov. 15	Small Pompon	S-2
Illini Starflower	July 22	Nov. 18	Semi Anemone	P-1
Seafoam	July 25	Nov. 20	Int. Pompon	S-2
**L. I. Beauty	July 25	Nov. 20	Large Anemone	S-3
Highbrow	July 25	Nov. 20	Int. Decorative	S-3
Nevada	July 25	Nov. 20	Int. Anemone	S-2
Priscilla	July 25	Nov. 20	Int. Pompon	S-3
Illini Bountiful	July 25	Nov. 23	Int. Decorative	S-1
Crystal Beauty	July 28	Nov. 23	Int. Pompon	S-2
Paramount	July 25	Nov. 23	Int. Pompon	S-3
12 Week Varieties				
Belray	Aug. 5	Nov. 24	Large Pompon	S-3
Wh. Yuletide	Aug. 1	Nov. 25	Med. Pompon	S-4
**White Lady	Aug. 1	Nov. 25	Large Anemone	P-3
Silvercrest	Aug. 1	Nov. 25	Formal Pompon	P-1
Illini Peace	Aug. 1	Nov. 25	Anemone	P-1
White Valencia	Aug. 1	Nov. 28	Large Single	S-3
Cordova	Aug. 5	Nov. 30	Int. Pompon	S-2
Fortune	Aug. 5	Dec. 1	Int. Pompon	S-3
Monarch	July 28	Dec. 1	Int. Decorative	S-1
Carrara	Aug. 10	Dec. 3	Int. Decorative	P-3
13 Week Varieties				
Wh. Enchantress (New)	Aug. 10	Dec. 5	Large Anemone	P-2
Cameo	Aug. 10	Dec. 5	Int. Decorative	S-3
Acclaim	Aug. 10	Dec. 5	Int. Pompon	S-2
Swan	Aug. 1	Dec. 5	Large Anemone	S-1
Spangles	Aug. 10	Dec. 5	Int. Pompon	S-2
Cotillion	Aug. 1	Dec. 5	Small Pompon	S-2
Orway	Aug. 10	Dec. 8	Single	P-1
Snowdrop	Aug. 1	Dec. 8	Small Pompon	S-2
White Snowdrop	Aug. 10	Dec. 8	Button Pompon	P-1
Illini Starlet	Aug. 10	Dec. 10	Int. Anemone	P-2
Imp. White Supreme	Aug. 10	Dec. 10	Large Anemone	P-2
Snowflake	Aug. 10	Dec. 10	Int. Pompon	P-1
Snow Queen	Aug. 10	Dec. 10	Int. Pompon	S-2
Yukon	Aug. 10	Dec. 10	Int. Single	S-2
Illini Starlet	Aug. 10	Dec. 10	Int. Anemone	P-2
Satellite	Aug. 10	Dec. 13	Int. Pompon	S-2
14 Week Varieties				
Trenton	Aug. 10	Dec. 15	Int. Pompon	P-2
Snowcrest	Aug. 10	Dec. 15	Small Pompon	S-3
Silversmith	Aug. 10	Dec. 15	Int. Decorative	S-4
Cream Snowcrest	Aug. 10	Dec. 15	Small Pompon	P-3
Snowcap	Aug. 10	Dec. 15	Large Pompon	S-3
Garza	Aug. 10	Dec. 15	Int. Anemone	S-3
Heirloom	Aug. 10	Dec. 20	Int. Decorative	S-2
Wedding Bells	Aug. 10	Dec. 20	Small to Med. Pompon	P-1
15 Week Varieties				
Muto's White	Aug. 15	Dec. 25	Large Pompon	S-4
Revelation	Aug. 15	Dec. 25	Int. Decorative	S-4
Snow	Aug. 10	Dec. 25	Int. Pompon	S-3
Talmeda	Aug. 15	Jan. 5	Int. Pompon	P-2
Illini Snowbound	Aug. 15	Jan. 5	Int. Decorative	P-3

Yellow Pompoms, Decoratives Singles & Anemones

6 Week Varieties				
Yel. Chris. Columbus	June 24	Oct. 1	Int. Decorative	S-3
Moonlight	June 24	Oct. 1	Int. Decorative	P-3
Honeycomb	June 24	Oct. 1	Small Pompon	S-1

**Also recommended for Pot Plants

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Yellow Pompoms, Decoratives Singles & Anemones

Variety	Normal Pinch Date	Flowering Date	Description	Price Classification
7 Week Varieties				
Polaris	June 24	Oct. 5	Int. Single	S-2
Chas. Nye	June 24	Oct. 5	Int. Decorative	S-2
Garland	June 24	Oct. 5	Int. Single	S-1
Yellow Spoon	June 24	Oct. 5	Int. Spoon	S-2
Lee Powell	June 24	Oct. 10	Large Decorative	P-3
Goldrush	June 24	Oct. 10	Small Single	S-2
Treasure	June 24	Oct. 10	Small Pompon	S-1
Bright Forecast	June 24	Oct. 10	Small Pompon	S-2
Lemonade	June 24	Oct. 12	Int. Decorative	S-2
Sweepstake	June 24	Oct. 12	Small Pompon	S-1
8 Week Varieties				
Yel. Irene	July 10	Oct. 15	Small Pompon	S-2
Arlora	July 10	Oct. 15	Int. Decorative	P-2
Sundew	July 10	Oct. 15	Decorative	P-0
Creampuff	July 5	Oct. 20	Int. Single	P-2
Moondrift	July 10	Oct. 20	Int. Single	P-3
Rodell Imp.	July 10	Oct. 20	Small Pompon	S-3
9 Week Varieties				
**Ordalia	July 12	Oct. 25	Large Decorative	P-2
Starlight	July 12	Oct. 25	Large Single	P-2
Golden Herald	July 20	Oct. 25	Large Decorative	S-4
Goldfinch	July 20	Oct. 25	Small Button	P-0
Gold Coast	July 20	Oct. 25	Int. Pompon	S-4
Red Dot	July 20	Oct. 25	Med. Pompon	S-3
Yellow Dot	July 20	Oct. 25	Int. Pompon	S-2
Cream Dot	July 20	Oct. 25	Int. Pompon	S-1
Imamura	July 20	Oct. 25	Int. Daisy	S-1
Yel. Firebird	July 20	Oct. 25	Med. Decorative	S-2
Aztec	July 20	Oct. 28	Int. Single	P-2
Sunup	July 20	Oct. 28	Small Pompon	S-2
Yellow Arcadia	July 20	Oct. 28	Int. Pompon	S-2
Sauterne	July 20	Oct. 30	Int. Single	P-2
Gondola	July 20	Oct. 30	Int. Single	P-2
Mary Gold	July 20	Nov. 1	Med. Pompon	S-4
Mary Hall	July 20	Nov. 1	Int. Pompon	S-4
Yellow Halo	July 20	Nov. 1	Int. Single	P-3
Schn. Yel. Daisy	July 20	Nov. 1	Int. Single	S-3
Yellow Doty	July 15	Nov. 1	Large Pompon	S-2
Starbright	July 15	Nov. 1	Large Single	S-3
Yellow Daisy	July 20	Nov. 1	Int. Single	S-2
Yel. Sea Gull	July 20	Nov. 1	Int. Pompon	S-2
Yellow Cassandra	July 20	Nov. 1	Int. Pompon	S-1
Sunray	July 20	Nov. 3	Int. Single	S-3
Honeymoon	July 20	Nov. 4	Large Single	P-2
10 Week Varieties				
Barcarole	July 20	Nov. 5	Int. Pompon	S-3
Brigadoon	July 20	Nov. 5	Int. Single	S-2
Crescendo	July 20	Nov. 5	Large Pompon	S-3
Constellation	July 20	Nov. 5	Int. Decorative	S-3
Pixie	July 20	Nov. 5	Small Pompon	S-2
Nuggets	July 20	Nov. 5	Small Pompon	S-2
Golden Mensa	July 15	Nov. 10	Large Single	S-1
Yellow Shasta	July 25	Nov. 10	Large Anemone	S-4
Yellow Nagona (Calif. Yel. Mensa)	July 20	Nov. 10	Int. Single	S-1
Ill. Gold Cup	July 25	Nov. 10	Large Pompon	S-1
Yel. Beauty	July 25	Nov. 10	Large Pompon	S-1
11 Week Varieties				
Princeton	July 28	Nov. 15	Int. Decorative	S-2
Thorobred	July 28	Nov. 15	Large Single	S-1
Yel. Sculpture	July 28	Nov. 15	Large Single	P-1
Golden Chord	July 28	Nov. 15	Int. Pompon	S-3
Forty-Niner	July 28	Nov. 15	Int. Pompon	S-4
Yellow Fellow	July 28	Nov. 15	Int. Decorative	S-2
Susanne Miller	July 28	Nov. 15	Large Anemone	S-2
Tacoma	July 28	Nov. 15	Large Pompon	P-3

****Also recommended for Pot Plants**

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Yellow Pompoms, Decoratives Singles & Anemones

Variety	Normal Pinch Date	Flowering Date	Description	Price Classification
11 Week Varieties				
Illini Brave	July 28	Nov. 16	Small Pompon	S-1
Yel. L. I. Beauty	Aug. 1	Nov. 20	Large Anemone	S-2
Mingo Chief	Aug. 1	Nov. 20	Anemone	P-1
Yel. Highbrow	Aug. 1	Nov. 20	Int. Decorative	P-3
Lollipop	Aug. 1	Nov. 20	Int. Pompon	S-3
Pippin	Aug. 1	Nov. 20	Int. Pompon	S-2
Klondike	Aug. 1	Nov. 20	Int. Pompon	S-3
Bojangles	Aug. 1	Nov. 20	Int. Single	S-2
Yellow Nevada	July 25	Nov. 20	Int. Anemone	S-2
Illini Sunspot	Aug. 1	Nov. 20	Large Pompon	P-3
Yellow Paramount	Aug. 1	Nov. 23	Int. Pompon	P-2
Yellow Rolinda	Aug. 1	Nov. 23	Med. Anemone	S-3
12 Week Varieties				
Illini Wampum	Aug. 5	Nov. 25	Anemone	P-1
Goldenrod	Aug. 5	Nov. 25	Int. Pompon	S-2
Illini Gold	Aug. 5	Nov. 25	Int. Pompon	S-2
Yellow Priscilla	Aug. 5	Nov. 25	Med. Decorative	S-1
Goldsmith	Aug. 5	Nov. 25	Large Decorative	S-3
Highlander	Aug. 5	Nov. 25	Int. Decorative	S-2
Sunnyside	Aug. 5	Nov. 25	Int. Pompon	S-3
Champagne	July 28	Nov. 25	Int. Single	S-1
Yellow Valencia	Aug. 5	Nov. 28	Large Single	S-2
Golden Jane	Aug. 5	Nov. 28	Large Single	S-2
Yellow Cordova	Aug. 5	Nov. 30	Int. Pompon	S-2
Yellow Fortune	Aug. 5	Dec. 1	Int. Pompon	P-2
Omega	Aug. 5	Dec. 1	Int. Pompon	S-3
Nosegay	July 28	Dec. 1	Small Pompon	P-3
Yel. Galaxy	Aug. 5	Dec. 1	Int. Single	P-3
Gold Medal	Aug. 5	Dec. 1	Small Button	P-1
13 Week Varieties				
Yellow Acclaim (New)	Aug. 10	Dec. 5	Large Pompon	P-2
Golden Harvest	Aug. 1	Dec. 5	Small Pompon	S-1
Yel. Cotillion	Aug. 10	Dec. 5	Small Pompon	P-1
Brandywine	Aug. 1	Dec. 5	Int. Decorative	S-1
Jack-Pot	Aug. 10	Dec. 5	Large Decorative	S-2
Symmetry	Aug. 10	Dec. 5	Int. Pompon	P-3
Yel. Enchantress	Aug. 10	Dec. 5	Large Anemone	P-1
Yel. Swan	Aug. 1	Dec. 5	Large Anemone	S-1
Yellow Cameo	Aug. 10	Dec. 5	Int. Decorative	S-2
Yel. Spangles	Aug. 10	Dec. 5	Int. Pompon	P-3
Cinderella	Aug. 10	Dec. 5	Int. Single	S-2
Goldtone	Aug. 10	Dec. 5	Int. Single	S-1
Yel. Satellite	Aug. 10	Dec. 10	Int. Pompon	P-1
Imp. Yel. Supreme	Aug. 10	Dec. 10	Large Anemone	S-2
Goldie	Aug. 10	Dec. 10	Small Pompon	P-1
Challenge	Aug. 5	Dec. 12	Int. Single	S-1
Corsair	Aug. 10	Dec. 12	Large Pompon	S-2
14 Week Varieties				
Yellow Riviera	Aug. 10	Dec. 15	Int. Decorative	S-2
Yel. Snowcrest	Aug. 5	Dec. 15	Small Pompon	S-2
Yel. Garza	Aug. 5	Dec. 15	Int. Anemone	S-2
Sequin	Aug. 5	Dec. 15	Small Pompon	S-1
Shamrock	Aug. 10	Dec. 15	Large Decorative	S-3
December Gold	Aug. 5	Dec. 15	Int. Decorative	S-2
Sunkist	Aug. 10	Dec. 20	Int. Single	S-1
Vibrant	Aug. 10	Dec. 20	Int. Decorative	S-3
Revelry	Aug. 10	Dec. 20	Int. Decorative	S-2
Gold Seal	Aug. 10	Dec. 20	Int. Single	P-3
Sunrise	Aug. 10	Dec. 20	Int. Pompon	S-2
Golden Anniversary	Aug. 10	Dec. 24	Small Pompon	S-2
Yellow Revelation	Aug. 15	Dec. 25	Med. Pompon	S-3
15 Week Varieties				
Siren	Aug. 15	Dec. 25	Int. Decorative	S-3
Yuleflame	Aug. 15	Dec. 25	Large Decorative	S-3
Yellow Snow	Aug. 10	Dec. 25	Int. Pompon	S-3
Ill. Yel. Snowbound	Aug. 15	Jan. 5	Int. Decorative	P-3

**Also recommended for Pot Plants

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Bronze & Red Pompoms

Decoratives, Singles & Anemones

Variety	Normal Pinch Date	Flowering Date	Description	Price Classification
6 Week Varieties				
W. P. Snyder	June 24	Oct. 1	Int. Decorative	S-1
Marionette	June 24	Oct. 1	Small Pompon	S-1
Mogul	June 24	Oct. 1	Small Decorative	P-3
Bonfire	June 24	Oct. 1	Int. Pompon	S-1
7 Week Varieties				
Avalon	June 24	Oct. 5	Small Pompon	P-3
*Remembrance	June 24	Oct. 5	Int. Decorative	S-1
Mona	June 24	Oct. 5	Small Pompon	S-1
Huntsman	June 24	Oct. 5	Int. Decorative	S-1
Firecracker	June 24	Oct. 5	Int. Decorative	S-1
Regina	June 24	Oct. 5	Large Informal	P-1
Buckeye	June 24	Oct. 8	Int. Pompon	P-2
Panorama	June 24	Oct. 8	Small Pompon	P-3
Red Velvet	June 24	Oct. 10	Int. Decorative	S-1
Bamboo	June 24	Oct. 10	Small Single	S-1
Blueblood	June 24	Oct. 10	Int. Decorative	P-3
Calico	June 24	Oct. 10	Small Single	S-1
Caravan	June 24	Oct. 10	Int. Decorative	S-1
Carmine Queen	June 24	Oct. 10	Small Pompon	S-1
Carnival	June 24	Oct. 10	Small Pompon	S-2
Fireside	June 24	Oct. 10	Int. Decorative	S-1
Nokomis	June 24	Oct. 12	Int. Decorative	S-1
Fashion	June 24	Oct. 12	Med. Decorative	P-3
Nocturne	June 24	Oct. 12	Small Pompon	S-1
Nytoda	June 24	Oct. 12	Int. Single	P-3
Carmelita	June 24	Oct. 12	Int. Decorative	S-1
Witchery	June 24	Oct. 12	Int. Decorative	S-1
Mrs. Du Pont	June 24	Oct. 12	Large Decorative	S-2
Admiral	June 24	Oct. 12	Int. Decorative	S-1
Moonmaid	June 24	Oct. 14	Int. Pompon	P-2
8 Week Varieties				
Robinhue	June 15	Oct. 15	Int. Decorative	S-1
Red Glow	June 15	Oct. 15	Int. Decorative	S-1
Cocktail	June 15	Oct. 15	Int. Pompon	P-3
Rajah	July 15	Oct. 15	Int. Single	S-1
Detroit	July 15	Oct. 15	Small Pompon	S-1
James Stewart	July 15	Oct. 15	Small Pompon	S-2
Talisman	July 15	Oct. 20	Int. Single	P-2
Adelaide	July 15	Oct. 20	Small Pompon	S-3
Paradise	July 15	Oct. 20	Int. Single	P-2
Jemima	July 15	Oct. 20	Large Pompon	S-3
Palette	July 15	Oct. 20	Int. Single	P-2
Br. Mary McArthur	July 20	Oct. 23	Small Pompon	S-1
9 Week Varieties				
Bonton	July 20	Oct. 25	Med. Pompon	S-2
Gaiety	July 20	Oct. 25	Int. Single	P-2
Firebird	July 20	Oct. 25	Int. Decorative	S-2
Bronze Dot	July 14	Oct. 25	Int. Pompon	S-3
Oct. Bronze	July 20	Oct. 28	Med. Single	S-2
Buckskin	July 20	Oct. 25	Int. Single	S-3
**Hilarity	July 25	Nov. 1	Int. Single	P-2
Seneca	July 14	Nov. 1	Int. Decorative	S-2
Firefly	July 14	Nov. 1	Int. Pompon	S-2
Bronze Daisy	July 15	Nov. 1	Int. Single	S-2
Imp. Br. Daisy (Katoka Red)	July 15	Nov. 1	Int. Single	S-1
Buccaneer	July 25	Nov. 1	Int. Single	S-2
Red Seneca	July 25	Nov. 1	Int. Decorative	S-2
Br. Buckingham	July 25	Nov. 1	Int. Single	S-1
Navaho	July 25	Nov. 1	Int. Pompon	S-2
Red Daisy	July 15	Nov. 1	Int. Single	S-2
Imp. Red Daisy (Adachi Red)	July 15	Nov. 1	Int. Single	S-2
10 Week Varieties				
Comanche	July 25	Nov. 5	Int. Pompon	S-1
Jet Fire	July 25	Nov. 5	Int. Decorative	P-1
Flame Glow	July 25	Nov. 5	Int. Single	P-2
Orange Beauregard	July 25	Nov. 5	Int. Pompon	P-2

**Also recommended for Pot Plants

Price Classification Translated on Page 28

Bronze & Red Pompoms

Decoratives, Singles & Anemones

Variety	Normal Pinch Date	Flowering Date	Description	Price Classification
10 Week Varieties				
Beauregard	July 25	Nov. 5	Int. Pompon	S-3
Butterscotch	July 20	Nov. 5	Int. Pompon	S-2
Cassandra	July 20	Nov. 5	Int. Pompon	S-2
Red Rust	July 25	Nov. 5	Int. Decorative	S-2
Rubicon	July 25	Nov. 5	Int. Decorative	S-3
Magician	July 20	Nov. 5	Large Pompon	S-2
Bittersweet	July 25	Nov. 5	Int. Single	S-2
**Gypsy	July 25	Nov. 8	Small Anemone	S-3
Samovar	July 20	Nov. 10	Int. Pompon	S-3
Firegleam	July 20	Nov. 10	Int. Decorative	P-1
Sylvanna	July 19	Nov. 10	Int. Single	S-2
Chanticleer	July 20	Nov. 10	Large Pompon	S-1
Br. Pandora	July 20	Nov. 10	Large Decorative	P-1
Chevron	July 25	Nov. 10	Int. Decorative	S-2
The Titan	July 25	Nov. 10	Large Anemone	S-1
Bronze Thyra	July 20	Nov. 10	Int. Pompon	S-1
Barbara Fuller	July 20	Nov. 10	Anemone	P-1
Illini Burma	July 25	Nov. 10	Large Pompon	P-3
Europa	July 19	Nov. 10	Large Single	S-1
**Copperhead	July 25	Nov. 10	Large Decorative	S-3
Br. Linda Lou	July 25	Nov. 10	Int. Anemone	S-2
Br. Tuxedo	July 19	Nov. 10	Large Anemone	S-1
Gold Braid	July 20	Nov. 12	Int. Pompon	S-1
Illini Rye	July 25	Nov. 12	Int. Pompon	P-3
Br. Masterpiece	July 25	Nov. 12	Int. Pompon	S-2
**Dk. Br. Masterpiece	July 25	Nov. 12	Int. Pompon	S-2
Paragon	July 25	Nov. 12	Large Pompon	S-3
Illini Tangier	July 25	Nov. 12	Large Decorative	P-3
**Red King	July 25	Nov. 13	Int. Single	P-2
**Cadet	July 25	Nov. 14	Int. Anemone	P-2
11 Week Varieties				
Mrs. Dewey	July 28	Nov. 15	Large Single	S-2
Shalimar	July 28	Nov. 15	Int. Anemone	S-1
Red Princeton	July 28	Nov. 15	Int. Decorative	S-2
Illini Honey	July 28	Nov. 15	Small Pompon	S-1
Illini Redhead	July 28	Nov. 17	Small Pompon	S-1
Illini Warrior	Aug. 1	Nov. 20	Int. Pompon	S-2
Rubaiyat	Aug. 1	Nov. 20	Int. Formal	P-1
Legal Tender	Aug. 1	Nov. 20	Int. Decorative	S-2
Rusticon	July 25	Nov. 20	Int. Pompon	S-3
Thelma	Aug. 1	Nov. 20	Int. Pompon	S-2
Bourbon	July 25	Nov. 20	Int. Single	S-1
Carousel	July 25	Nov. 23	Int. Single	S-1
Festival	July 25	Nov. 23	Int. Single	S-2
Br. Minuet	July 28	Nov. 23	Int. Pompon	S-2
Dk. Br. Minuet	Aug. 1	Nov. 23	Int. Pompon	P-1
**Red Rolinda	July 25	Nov. 23	Int. Anemone	S-2
12 Week Varieties				
Illini Redwood	Aug. 5	Nov. 25	Int. Pompon	P-2
Br. Goldsmith	Aug. 1	Nov. 25	Large Decorative	S-3
Wanakah	July 28	Nov. 25	Int. Single	P-3
Falcon	July 28	Nov. 25	Int. Pompon	S-2
Yolanda	Aug. 1	Nov. 25	Int. Anemone	S-1
Indian Head	July 28	Nov. 28	Large Single	S-2
Apricot Valencia	Aug. 1	Nov. 28	Large Single	S-2
Crimson Valencia	July 28	Nov. 28	Large Single	S-2
Red Heritage	Aug. 1	Dec. 1	Int. Pompon	P-1
Amberina	Aug. 1	Dec. 1	Int. Decorative	S-1
Galaxy	Aug. 1	Dec. 1	Int. Single	S-3
Orange Galaxy	Aug. 1	Dec. 1	Int. Single	P-1
13 Week Varieties				
Dazzler	Aug. 1	Dec. 5	Int. Single	S-1
Br. Enchantress	Aug. 5	Dec. 5	Large Anemone	S-1
Red Enchantress	Aug. 5	Dec. 5	Large Anemone	P-1
Debonair	Aug. 10	Dec. 5	Large Pompon	S-2

**Also recommended for Pot Plants

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Bronze & Red Pompoms

Decoratives, Singles & Anemones

Variety	Normal Pinch Date	Flowering Date	Description	Price Classification
13 Week Varieties				
Mahogany Viking	Aug. 1	Dec. 5	Int. Decorative	S-1
Imp. Br. Supreme	Aug. 10	Dec. 10	Large Anemone	S-1
Br. Supreme	Aug. 10	Dec. 10	Large Anemone	S-2
Red Supreme	Aug. 5	Dec. 10	Large Anemone	S-1
Harlequin	Aug. 10	Dec. 10	Int. Decorative	S-1
Holiday	Aug. 5	Dec. 10	Int. Single	S-2
Cavalcade	Aug. 10	Dec. 10	Med. Pompon	S-1
Pageantry	Aug. 4	Dec. 10	Int. Pompon	S-1
Christmas Star	Aug. 10	Dec. 12	Int. Single	S-3
Br. Minstrel	Aug. 10	Dec. 13	Int. Pompon	S-2
Red Minstrel	Aug. 10	Dec. 13	Int. Pompon	P-1
Dk. Br. Minstrel	Aug. 5	Dec. 13	Int. Pompon	P-3
14 Week Varieties				
Bronze Riviera	Aug. 15	Dec. 15	Int. Decorative	S-2
**Claret	Aug. 5	Dec. 15	Int. Single	S-1
Topaz	Aug. 15	Dec. 15	Large Single	S-1
Christmas Greeting	Aug. 15	Dec. 15	Int. Decorative	S-3
Sarong	Aug. 5	Dec. 15	Int. Single	S-2
Merrymaker	Aug. 15	Dec. 20	Int. Single	S-3
Poinsettia	Aug. 15	Dec. 20	Large Single	S-2

Pink Pompoms, Decoratives

Singles & Anemones

6 Week Varieties				
Early Wonder	June 24	Oct. 1	Int. Pompon	S-1
Spellbound	June 24	Oct. 1	Int. Decorative	S-3
7 Week Varieties				
Petrisian Mauve	June 24	Oct. 5	Int. Pompon	P-1
Petrisian Pink	June 24	Oct. 5	Int. Pompon	P-1
Petrisian Rose	June 24	Oct. 5	Int. Pompon	P-1
Courtier	June 24	Oct. 10	Int. Decorative	S-1
Dream Girl	June 24	Oct. 10	Int. Pompon	S-1
Ponca	June 24	Oct. 10	Small Decorative	S-1
Argonne	June 24	Oct. 10	Int. Pompon	S-1
Lassie	June 24	Oct. 10	Int. Decorative	S-1
Serenade	June 24	Oct. 10	Int. Single	S-1
Orchid Spoon	June 24	Oct. 10	Int. Spoon	S-1
Joybringer	June 24	Oct. 10	Int. Pompon	S-2
Brigadier	June 24	Oct. 10	Int. Decorative	S-1
Sweetheart	June 24	Oct. 10	Int. Single	S-1
Allegro	June 24	Oct. 12	Small Decorative	S-1
Masquerade	June 24	Oct. 12	Small Pompon	S-1
Ronnie	June 24	Oct. 12	Small Pompon	S-1
Salute	June 24	Oct. 12	Small Single	S-1
Adagio	June 24	Oct. 12	Int. Pompon	S-1
Lavender Lady	June 24	Oct. 12	Int. Decorative	S-1
Sonnet	June 24	Oct. 14	Int. Pompon	P-2
Betty	June 24	Oct. 14	Int. Decorative	S-1
8 Week Varieties				
Fairyland	July 15	Oct. 15	Int. Decorative	P-2
Mayfair	July 15	Oct. 15	Int. Single	P-2
Jester	July 15	Oct. 15	Int. Single	P-2
Citation	July 15	Oct. 15	Int. Pompon	P-2
Enterprise	July 15	Oct. 15	Int. Pompon	P-3
Eliz. Hood	July 15	Oct. 15	Int. Pompon	P-3
Jewell	July 15	Oct. 15	Small Pompon	S-2
Tsukushi Pink	July 15	Oct. 20	Int. Single	S-1
Mirth	July 15	Oct. 20	Int. Single	P-2
Carolyn Yosick	July 15	Oct. 20	Int. Pompon	S-3
Pink Sprite	July 18	Oct. 23	Small Pompon	S-1

**Also recommended for Pot Plants

Price Classification Translated on Page 28

Pink Pompoms, Decoratives Singles & Anemones

Variety	Normal Pinch Date	Flowering Date	Description	Price Classification
8 Week Varieties				
Mary McArthur	July 14	Oct. 23	Small Pompon	S-2
Capt. Cook	July 18	Oct. 23	Med. Pompon	S-3
Prelude	July 20	Oct. 24	Int. Single	P-2
9 Week Varieties				
Pinkette	July 20	Oct. 25	Int. Pompon	P-2
Vogue	July 20	Oct. 25	Large Single	P-2
Edith Roberts	July 15	Oct. 25	Small Pompon	S-1
Reward	July 20	Oct. 25	Int. Single	S-3
Pink Dot	July 20	Oct. 25	Int. Pompon	S-4
Jessie	July 20	Oct. 25	Int. Pompon	S-2
Betty Rose	July 15	Oct. 25	Large Anemone	S-1
Oct. Pink	July 20	Oct. 25	Int. Single	S-2
Bluechip	July 20	Nov. 1	Int. Decorative	P-2
Pk. Calif. Daisy (W. H. Buckingham)	July 20	Nov. 1	Int. Single	S-2
Rainbow	July 20	Nov. 1	Int. Single	P-3
Ballerina	July 20	Nov. 1	Int. Single	S-2
Lillian Doty	July 20	Nov. 1	Large Pompon	S-2
Lotus	July 20	Nov. 3	Int. Pompon	P-2
Tempo	July 20	Nov. 3	Int. Decorative	P-2
10 Week Varieties				
Parisienne	July 22	Nov. 5	Int. Single	P-1
Dreamboat	July 22	Nov. 5	Int. Pompon	S-2
Dark Bulkeley	July 20	Nov. 8	Int. Pompon	S-2
**Portrait	July 20	Nov. 8	Large Decorative	P-2
Criterion	July 22	Nov. 8	Int. Decorative	P-1
Pennant	July 25	Nov. 10	Int. Decorative	P-2
**Cover Girl	July 25	Nov. 10	Int. Anemone	P-2
Nobility	July 25	Nov. 10	Int. Single	P-2
Pandora	July 25	Nov. 10	Large Decorative	S-2
Humdinger	July 25	Nov. 10	Int. to large Formal	P-1
**Thyra	July 25	Nov. 10	Int. Pompon	S-2
Soprano	July 20	Nov. 10	Large Single	S-2
Linda Lou	July 25	Nov. 10	Int. Anemone	S-3
Dark Linda Lou	July 25	Nov. 10	Int. Anemone	S-2
Tuxedo	July 20	Nov. 10	Large Anemone	S-1
Miss Clarinda	July 25	Nov. 11	Med. Pompon	P-3
Illini Regal	July 25	Nov. 12	Small Pompon	P-1
**Masterpiece	July 25	Nov. 12	Int. Pompon	S-3
Rose Masterpiece	July 25	Nov. 12	Int. Pompon	S-2
Salmon Masterpiece	July 25	Nov. 12	Int. Pompon	S-2
Memorial	July 25	Nov. 12	Int. Anemone	S-2
11 Week Varieties				
Taffeta	July 25	Nov. 15	Int. Decorative	S-3
Carole	July 25	Nov. 15	Int. Anemone	P-2
Dark Norma	July 25	Nov. 15	Large Anemone	S-2
Illini Springtime	July 25	Nov. 15	Int. Pompon	P-1
Orchid Beauty	July 25	Nov. 15	Int. Anemone	S-1
Brocade	July 22	Nov. 15	Int. Single	S-2
Frieda	July 25	Nov. 15	Large Anemone	S-3
Arbutus	July 20	Nov. 15	Int. Pompon	P-3
**Polka	July 25	Nov. 20	Int. Anemone	P-2
Nugano	July 25	Nov. 20	Int. Pompon	P-2
Grand Slam	July 28	Nov. 20	Large Single	S-2
Almega	July 28	Nov. 20	Large Pompon	P-3
Vivacious Lady	July 25	Nov. 20	Int. Spoon	S-1
Evening Star	July 28	Nov. 20	Int. Anemone	P-3
Pink L. I. Beauty	July 28	Nov. 20	Large Anemone	S-2
Pinky	July 25	Nov. 20	Int. Decorative	S-1
Dk. L. I. Beauty	July 28	Nov. 20	Large Anemone	P-3
Dk. Pk. Majorette	July 28	Nov. 20	Int. Anemone	P-2
**Majorette	July 28	Nov. 20	Int. Anemone	S-1
Minuet	Aug. 1	Nov. 23	Int. Pompon	S-3
Dk. Pk. Minuet	Aug. 1	Nov. 23	Int. Pompon	P-1
Illini Formal	Aug. 1	Nov. 23	Int. Pompon	P-2

**Also recommended for Pot Plants

Price Classification Translated on Page 28

Pink Pompoms, Decoratives Singles & Anemones

Variety	Normal Pinch Date	Flowering Date	Description	Price Classification
12 Week Varieties				
Pink Cloud	Aug. 1	Nov. 25	Int. Decorative	P-2
Princess	Aug. 1	Nov. 25	Small Pompon	S-2
Hasegawa Pink	Aug. 1	Nov. 25	Int. Single	S-2
**Beautiful Lady	Aug. 1	Nov. 25	Large Anemone	S-3
Valencia	Aug. 1	Nov. 28	Large Single	S-2
Dark Valencia	Aug. 1	Nov. 28	Large Single	S-3
Dubonnet Valencia	Aug. 1	Nov. 28	Large Single	S-3
Orchid Valencia	Aug. 1	Nov. 28	Large Single	S-1
Salmon Valencia	Aug. 1	Nov. 28	Large Single	S-2
Heritage	Aug. 5	Dec. 1	Int. Pompon	S-2
13 Week Varieties				
Enchantress	Aug. 5	Dec. 5	Large Anemone	S-2
Dark Enchantress	Aug. 1	Dec. 5	Large Anemone	S-2
Argyle	Aug. 10	Dec. 10	Small Pompon	P-2
Debutante	Aug. 10	Dec. 10	Int. Single	S-3
Imp. Dk. Supreme	Aug. 10	Dec. 10	Large Anemone	S-2
Ruffled Supreme	Aug. 10	Dec. 10	Large Decorative	S-2
Minstrel	Aug. 15	Dec. 13	Int. Pompon	S-3
Lt. Pk. Minstrel	Aug. 15	Dec. 13	Int. Pompon	S-3
Dk. Pk. Minstrel	Aug. 15	Dec. 10	Int. Pompon	P-1
Imp. Pk. Minstrel	Aug. 15	Dec. 10	Int. Pompon	P-1
14 Week Varieties				
Riviera	Aug. 10	Dec. 15	Int. Decorative	S-3
Dk. Riviera	Aug. 10	Dec. 15	Med. Decorative	S-3
Serrated Riviera	Aug. 10	Dec. 15	Int. Decorative	P-3
Coronet	Aug. 15	Dec. 15	Int. Single	S-1
Rosalind	Aug. 15	Dec. 20	Int. Single	S-2
Defiance	Aug. 15	Dec. 20	Int. Decorative	S-2
Medallion	Aug. 15	Dec. 20	Int. Pompon	S-2
Rose Medallion	Aug. 15	Dec. 20	Int. Pompon	P-3
Pk. Treas. Is.	Aug. 15	Dec. 20	Med. Decorative	S-3
Lynda McLane	Aug. 15	Dec. 25	Int. Pompon	P-1

White Standards

8 Week Varieties				
Silver Sheen	July 10	Oct. 20	Int. Incurred	S-3
White Chief	July 10	Oct. 20	Int. Incurred	S-2
**Christina	July 12	Oct. 23	Small Incurred	S-2
9 Week Varieties				
Nightingale	July 20	Oct. 25	Spider-Chartreuse Ctr.	S-2
**Granite State	July 20	Oct. 25	Small Semi-Incurred	S-3
Ambassador	July 20	Oct. 25	Int. Semi-Incurred	S-2
**Wilson's White	July 20	Nov. 1	Int. Incurred	S-2
Albatross	July 20	Nov. 1	Int. Incurred	S-4
Snow White	July 20	Nov. 1	Large Incurred	S-3
10 Week Varieties				
Betsy Ross	July 20	Nov. 5	Large Incurred	S-3
Giant Betsy Ross	July 20	Nov. 5	Large Incurred	S-4
**Ind. White	July 20	Nov. 5	Int. Incurred	S-4
**Richard Mandel	July 20	Nov. 5	Small Incurred	S-2
Jean Elizabeth	July 25	Nov. 5	Large Semi-Incurred	S-3
Crystal Queen	July 25	Nov. 10	Large Semi-Incurred	P-3
White Pockett	July 20	Nov. 10	Large Incurred	S-2
Monument	July 25	Nov. 10	Int. Incurred	S-3
White Fern Edwards	July 25	Nov. 10	Med. Incurred	S-3
Crystal Queen	July 25	Nov. 10	Large Incurred	P-3
Mrs. Iwata	July 25	Nov. 10	Med. Incurred	P-1
11 Week Varieties				
Sterling	July 25	Nov. 10	Large Incurred	S-2
**Marketeer	July 28	Nov. 18	Int. Semi-Incurred	S-3
Mefo	July 28	Nov. 20	Large Incurred	S-4

**Also recommended for Pot Plants

Price Classification Translated on Page 28

White Standards

Variety	Normal Pinch Date	Flowering Date	Description	Price Classification
11 Week Varieties				
Cream Mefo	July 28	Nov. 20	Int. Incurved	S-2
**White Frick	July 28	Nov. 20	Int. Incurved	S-2
Indiana Market	July 28	Nov. 20	Int. Incurved	S-1
White Peter John	July 28	Nov. 23	Med. Reflexed	S-3
12 Week Varieties				
Chattanooga	Aug. 1	Nov. 25	Large Incurved	S-3
December Glory	Aug. 5	Dec. 1	Int. Incurved	S-4
**Margaret Moeller	Aug. 5	Dec. 3	Int. Incurved	S-3
13 Week Varieties				
December White	Aug. 5	Dec. 5	Int. Incurved	S-2
White Mistletoe	Aug. 5	Dec. 5	Int. Incurved	S-2
Snowline	Aug. 5	Dec. 10	Large Incurved	S-2
Smith's White	Aug. 10	Dec. 13	Int. Semi-Incurved	S-4
Smiths Cream White	Aug. 10	Dec. 13	Semi-Incurved	P-1

Yellow Standards

8 Week Varieties				
Honeysweet	July 15	Oct. 15	Large Incurved	P-0
**Gold Lode	July 15	Oct. 15	Int. Reflexed	S-2
Celestra	July 15	Oct. 15	Small Semi-Incurved	S-2
Harvest Golden	July 15	Oct. 15	Med. Incurved	S-1
Valiant	July 15	Oct. 15	Large Incurved	P-0
**Mrs. Kidder	July 15	Oct. 20	Int. Incurved	S-3
Butterball	July 10	Oct. 20	Int. Incurved	S-2
**Blazing Gold	July 20	Oct. 23	Int. Semi-Incurved	S-4
9 Week Varieties				
**Smith's Superlative	July 15	Oct. 25	Int. Semi-Incurved	S-1
Yellow Ambassador	July 20	Oct. 25	Int. Semi-Incurved	S-2
**Yellow Bergen	July 15	Oct. 25	Int. Incurved	S-2
**Sunglow	July 20	Oct. 25	Int. Incurved	S-2
**Golden Glory	July 20	Nov. 1	Int. Incurved	S-2
Good News	July 20	Nov. 1	Int. Incurved	S-4
Yellow Albatross	July 20	Nov. 1	Large Incurved	P-1
Yellow Ivanhoe	July 20	Nov. 1	Small Incurved	P-1
10 Week Varieties				
Imp. Ind. Yellow	July 25	Nov. 5	Int. Incurved	S-4
**Ind. Yellow	July 25	Nov. 5	Int. Incurved	S-4
**Dk. Ind. Yel. (Pots)	July 25	Nov. 5	Int. Incurved	S-4
Yellow Queen	July 25	Nov. 10	Large Semi-Incurved	S-3
Jamboree	July 25	Nov. 10	Int. Incurved	S-1
**Yellow Beauty	July 25	Nov. 10	Small Incurved	S-2
Yellow Pockett	July 20	Nov. 10	Large Incurved	S-2
Yellow Monument	July 25	Nov. 10	Int. Incurved	S-3
**Honey Dew	July 22	Nov. 12	Int. Incurved	S-1
11 Week Varieties				
**Yellow Marketeer	July 25	Nov. 18	Int. Semi-Incurved	P-3
**Bonnaffon Deluxe	July 25	Nov. 20	Small Incurved	S-4
**Friendly Rival	July 25	Nov. 20	Int. Incurved	S-3
Yellow Mefo	July 25	Nov. 20	Large Incurved	S-4
Cream Mefo	July 25	Nov. 20	Large Incurved	S-2
**Purdue	July 25	Nov. 20	Int. Incurved	S-1
Harvester	July 28	Nov. 23	Int. Incurved	S-3
**Marie DePetris	July 28	Nov. 23	Int. Incurved	S-3
Yellow Peter John	July 28	Nov. 23	Medium Reflexed	S-3
12 Week Varieties				
Dk. Yel. Chattanooga	Aug. 1	Nov. 25	Large Incurved	P-2
Yellow Chattanooga	Aug. 1	Nov. 25	Large Incurved	S-3
Golden Pearson	Aug. 1	Nov. 25	Int. Incurved	S-3
Mrs. Calkins	Aug. 1	Nov. 25	Int. Semi-Incurved	S-1
**Sungold	Aug. 1	Nov. 25	Int. Incurved	S-3
Golden Mrs. Ross	Aug. 1	Dec. 3	Large Incurved	S-3
**Yellow Moeller	Aug. 1	Dec. 3	Int. Incurved	S-2

**Also recommended for Pot Plants

Price Classification Translated on Page 28

Yellow Standards

Variety	Normal Pinch Date	Flowering Date	Description	Price Classification
13 Week Varieties				
Golden Mistletoe	Aug. 10	Dec. 5	Int. Incurved	S-1
Chalice	Aug. 10	Dec. 5	Int. Incurved	S-1
Tobin's Yellow	Aug. 10	Dec. 13	Int. Semi-Incurved	S-3
Meteore	Aug. 10	Dec. 13	Int. Semi-Incurved	S-3
**Dauntless	Aug. 23	Dec. 13	Small Semi-Incurved	S-2

Bronze & Red Standards

8 Week Varieties				
Mayford's Triumph	July 15	Oct. 15	Med. Incurved	S-1
Amber Bright	July 15	Oct. 15	Med. Incurved	S-1
9 Week Varieties				
**Hilda Bergen	July 15	Oct. 25	Int. Incurved	S-2
**Glitters	July 20	Oct. 28	Int. Reflexed	S-1
**Red Glitters	July 20	Oct. 28	Int. Reflexed	S-1
Ivanhoe	July 15	Nov. 1	Small Incurved	S-2
**Apricot Queen	July 20	Nov. 1	Int. Incurved	S-2
Detroit News	July 20	Nov. 1	Int. Incurved	S-4
**Royal Bronze	July 20	Nov. 1	Small Semi-Incurved	P-3
10 Week Varieties				
**Ind. Bronze	July 25	Nov. 5	Int. Incurved	S-4
**Ind. Golden Bronze	July 25	Nov. 5	Quilled; Semi-Incurved	S-1
**Dk. Ind. Bronze	July 25	Nov. 5	Int. Incurved	P-3
Anaconda	July 25	Nov. 8	Large Incurved	S-2
Delaware	July 25	Nov. 8	Semi Incurved	P-1
Oakdale	July 20	Nov. 10	Int. Incurved	S-1
Br. Orchid Queen	July 25	Nov. 10	Large Semi-Incurved	S-2
Mrs. Stahelin	July 20	Nov. 10	Int. Incurved	S-2
Mrs. Roy	July 25	Nov. 13	Int. Incurved	S-3
Garnet King	July 25	Nov. 13	Int. Reflexed	S-2
11 Week Varieties				
Br. Frick	Aug. 1	Nov. 20	Int. Incurved	S-2
Br. Peter John	Aug. 1	Nov. 23	Medium Reflexed	S-3
12 Week Varieties				
Gladys Pearson	Aug. 1	Nov. 25	Int. Incurved	S-3
Oak Leaf	Aug. 1	Nov. 25	Int. Incurved	S-3
**Muto's Crimson	Aug. 1	Dec. 1	Int. Semi-Incurved	S-2
13 Week Varieties				
Bronze Mistletoe	Aug. 5	Dec. 5	Int. Incurved	S-2

Pink Standards

8 Week Varieties				
Pink Chief	July 15	Oct. 15	Int. Incurved	S-3
Maj. Bowes	July 15	Oct. 20	Med. Incurved	S-1
9 Week Varieties				
Sugarplum	July 15	Nov. 1	Int. Incurved	S-1
10 Week Varieties				
J. W. Prince	July 22	Nov. 5	Int. Incurved	S-2
**Ind. Pink	July 22	Nov. 5	Int. Incurved	S-4
Orchid Queen	July 22	Nov. 10	Large Semi-Incurved	S-2
Lavender Queen	July 20	Nov. 10	Large Semi-Incurved	S-2
Dk. Orchid Queen	July 22	Nov. 10	Large Semi-Incurved	S-3
**Queen of Pinks	July 20	Nov. 10	Small Incurved	S-4
Pink Pockett	July 20	Nov. 10	Large Incurved	S-2
Phillip Kay	July 22	Nov. 10	Large Incurved	S-3
Pink Fern Edwards	July 22	Nov. 10	Large Incurved	S-3
11 Week Varieties				
Aristocrat	July 25	Nov. 20	Large Incurved	S-2
**Helen Frick	July 25	Nov. 20	Int. Incurved	S-3
Rose Delight	July 25	Nov. 20	Med. Incurved	S-1
Thanks. Pink	July 28	Nov. 23	Int. Reflexed	S-3
Ed. Seidewitz	July 28	Nov. 23	Int. Incurved	S-2
Dark Peter John	July 28	Nov. 23	Medium Reflexed	S-3
Light Peter John	July 28	Nov. 23	Medium Reflexed	S-3
13 Week Varieties				
Pink Mistletoe	Aug. 5	Dec. 5	Int. Incurved	S-2

**Also recommended for Pot Plants

Price Classification Translated on Page 28

Spider Types

Nightingale	July 20	Oct. 25	White Chartreuse Center	S-2
Silver Queen	July 20	Oct. 25	White	P-1
**Queens Lace	July 20	Nov. 1	White	S-3
Kay Tashima	July 20	Nov. 1	White	S-1
White Mary Garden	July 20	Nov. 1	White	P-1
White Rayonnante	July 20	Nov. 5	White	S-2
Kegons White	July 25	Nov. 10	White	S-3
Moribana	July 15	Oct. 25	Yellow	P-1
Luyona	July 20	Oct. 25	Yellow	P-3
**Yellow Lace	July 20	Nov. 1	Yellow	S-3
**Gold Lace	July 20	Nov. 1	Yellow	P-3
**Hooked Yellow Lace	July 20	Nov. 1	Yellow	P-3
Yellow Rayonnante	July 25	Nov. 5	Yellow	S-2
Yel. Curly Spider	July 25	Nov. 5	Yellow	S-1
Lorraine	July 22	Nov. 15	Yellow	S-1
Dalwin	July 15	Oct. 25	Lt. Bronze	P-3
Antique	July 20	Nov. 1	Bronze	P-1
Waikiki	July 25	Nov. 5	Apricot Bronze	S-1
Gena Harwood	July 20	Nov. 5	Buff Bronze	S-2
Nomago	July 20	Nov. 5	Bronze	S-2
Mamoru	July 25	Nov. 5	Buff Bronze	S-1
Mrs. Eisenhower	Aug. 1	Nov. 5	Bronze	P-1
Mrs. Walker	July 20	Nov. 1	Deep Lavender	S-1
Mary Garden	July 20	Nov. 1	Pink	S-2
Rayonnante	July 22	Nov. 5	Pink	S-2
Peggy Hoover	July 22	Nov. 10	Pink	S-1
Sue Sally Jones	July 25	Nov. 5	Lemon	S-1
Bunbu	July 22	Nov. 1	Lavender	S-2

**Also recommended for Pot Plants

Price Classification Translated on Page 28

VARIETIES BEST SUITED FOR POT CULTURE

Arlora	Horizon	Petrusian Pink
Antique	Hooked Yel. Lace	Petrusian Rose
Apricot Queen	Honeycomb	Pacesetter
Butterball	Ind. White	Queen of Pinks
Blue Chip	Ind. Yellow	Queens Lace
Barbara Fuller	Ind. Pink	Renown
Bonfire	Ind. Bronze	Remembrance
Bonnafon De Luxe	Dk. Ind. Bronze	Red Velvet
Buckeye	Imp. Ind. Yellow	Red Glow
Bamboo	Ill. Snowdrift	Red King
Beautiful Lady	Ill. Warrior	Red Rolinda
Blazing Gold	J. W. Prince	Rubicon
Carrara	Jet Fire	Reward
Copperhead	Joybringer	Richard Mandel
Constellation	Jewel	Royal Bronze
Christina	Lemonade	Shalimar
Classic	Lassie	Spellbound
Claret	Little America	Serenade
Courtier	Masterpiece	Sonnet
Citation	Marshmallow	Sept. Morn
Criterion	Maestro	Silverplate
Cover Girl	Ming	Suntone
Dalwin	Moonlight	Sundew
Delaware	Major Bowes	Sunray
Dream Girl	Mona	Starlight
Dk. Br. Masterpiece	Mrs. Du Pont	Thelma
Firegleam	Masquerade	Thyra
Festival	Mrs. Stahlein	White Cloud
Fairyland	Mrs. Kidder	White Lady
Garland	Orchid Spoon	Wilsons White
Gold Rush	Ostara	W. P. Snyder
Garnet King	Orloma	Yellow Spoon
Gypsy	Orsona	Yellow Lace
Gold Lace	Ponca	Yellow Christ. Columbus
Granite State	Portrait	
Humdinger	Petrusian Mauve	

For further information on above pot varieties refer to Index for page numbers listing complete information.

A.B.C. Supreme Quality Rooted Cuttings

Garden Varieties

SYMBOLS: (L) LARGE — (D) DECORATIVE — (P) POM — (C) CUSHION
(S) SINGLE — (B) BUTTON — (C-F) CARNATION FLOWERED

* RECOMMENDED FOR MOTHER'S DAY POT PLANTS
PINCHED AND SHORT DAY TREATMENT SAME DAY

D VARIETIES RECOMMENDED AS BETTER WHEN DISBUDDED

Variety	Size & Type	Color	Height	Matures	Per 100 Price
WHITE					
Osage	(CD)	White	Med.	Sept. 5	12.50
Candlelight	(D)	Ivory	Med.	Sept. 5	6.00
D. D. Ahrens	(D)	White	Tall	Sept. 10	6.00
Paper White	(D)	White	Med.	Sept. 10	7.50
*Crystal Maid	(D)	Cream	Short	Sept. 12	15.00
*Chris Columbus	(LD)	Cream	Tall	Sept. 15	6.50
Wh. Cushion	(CD)	White	Short	Sept. 15	6.00
*Calcite	(D)	Cream	Med.	Sept. 15	6.00
Powder Puff (Cushion)	(CD)	White	Short	Sept. 15	7.50
Martens White	(LD)	White	Med.	Sept. 15	8.00
Polar Ice	(LD)	White	Med.	Sept. 15	7.00
*Wh. Bounty	(B)	White	Tall	Sept. 15	7.00
D Wh. Tower . .	(LP)	Cream	Tall	Sept. 15	6.50
Snowspoon	(Spoon)	White	Med.	Sept. 18	15.00
Wh. Wonder	(LP)	Ivory	Med.	Sept. 25	7.50
*Shalimar (H)	(LP)	Cream	Tall	Sept. 25	7.50
*Ostosa (New)	(CP)	White	Short	Sept. 25	10.00
Wh. Cloud	(D)	White	Tall	Sept. 25	7.50
*Pepita	(B)	White	Med.	Sept. 28	7.00
Snow Fall	(D)	White	Med.	Oct. 1	7.00
Ermine	(D)	Ivory	Med.	Oct. 1	7.00
Gardenia	(LD)	White	Med.	Oct. 1	15.00
Limelight (New)	(P)	White	Med.	Oct. 5	10.00
*Lyric	(CS)	White	Short	Oct. 5	7.50
Avalanche	(LD)	Cream	Tall	Oct. 5	7.50
*Horizon	(P)	White	Med.	Oct. 5	7.00
Youdath's Wh.	(LD)	White	Med.	Oct. 5	6.00
*Marshmallow	(M Sgl.)	White	Med.	Oct. 5	9.00
Snow Elf	(P)	White	Med.	Oct. 8	7.00
*Classic	(B)	White	Tall	Oct. 10	7.00
*Maestro	(CP)	White	Short	Oct. 10	7.50
Wh. Spoon	(Spoon)	White	Med.	Oct. 10	6.00
*Silverplate	(D)	White	Med.	Oct. 12	7.00
Silver Ball	(P)	White	Tall	Oct. 15	6.00
Irene	(B)	White	Med.	Oct. 15	7.00
Norona	(SP)	White	Med.	Oct. 15	7.00
YELLOW					
Pathfinder	(C-F)	Lemon	Med.	Aug. 28	12.50
*Early Gold	(P)	Golden	Short	Sept. 5	7.50
Golden Hours	(P)	Chrome Yel.	Med.	Sept. 8	6.50
Delight	(P)	Golden	Med.	Sept. 8	8.00
Genista	(C)	Canary	Med.	Sept. 12	10.00
Yel. Supreme (H)	(C)	Brt. Lemon	Short	Sept. 15	6.00
*Pomponette	(P)	Golden	Short	Sept. 15	6.50
Yel. Cushion	(C)	Light Yellow	Short	Sept. 15	6.00
*Yel. Chris Columbus	(LD)	Brt. Lemon	Med.	Sept. 15	6.50
*Early Yellow	(B)	Dp. Lemon	Short	Sept. 15	6.00
Golden Carpet	(CP)	Golden	Short	Sept. 15	7.00
*D Ming	(P)	Orange Yel.	Med.	Sept. 18	8.00
*Aglow	(P)	Orange	Med.	Sept. 20	12.50
*Sept. Sunshine	(S)	Br. Lemon	Med.	Sept. 20	6.50
Wychwood	(LP)	Canary	Med.	Sept. 20	6.50
Golden Wonder	(P)	Golden	Med.	Sept. 25	10.00
Canary Wonder	(P)	Canary	Med.	Sept. 25	7.00
Chas. Nye	(LP)	Dp. Lemon	Tall	Sept. 25	7.00
Golden Sunset	(LD)	Copper Gold	Med.	Sept. 25	7.00
Honeycomb	(P)	Golden	Med.	Sept. 25	7.50
*Moonlight (DePetris)	(D)	Brt. Yel.	Med.	Sept. 25	8.00
Lee Powell	(LD)	Chinese Yel.	Tall	Sept. 25	8.00
Tangerine	(LD)	Dp. Orange	Med.	Sept. 25	6.50
Flaxen Beauty	(LD)	Light Lemon	Med.	Oct. 1	8.00
Tranquility	(D)	Light Lemon	Med.	Oct. 1	15.00
*Chiquita	(B)	Deep Lemon	Med.	Oct. 1	6.50
James Eadie	(LP)	Deep Chrome	Tall	Oct. 5	6.50
Yel. Avalanche	(LD)	Lt. Lemon	Tall	Sept. 15	6.50

Note: Above prices are for 100 cuttings. Prices for larger quantities on page 28.

Garden Varieties

Variety	Size & Type	Color	Height	Matures	Price Per 100
YELLOW					
*Garland	(S)	Lemon	Short	Oct. 5	7.50
Yel. Avalanche	(LD)	Light Lemon	Tall	Oct. 5	6.50
Polaris	(S)	Golden Buff	Med.	Oct. 5	7.50
*D Mrs. Rotan	(LD)	Deep Chrome	Med.	Oct. 5	6.50
Dwight Douglas	(LD)	Golden Yel.	Med.	Oct. 5	10.00
Sunstone (New)	(Spoon)	Light Yel.	Tall	Oct. 8	10.00
*Spode	(L. Inc)	Lemon	Short	Oct. 8	15.00
*Yel. Spoon	(Spoon)	Light Yel.	Med.	Oct. 10	7.00
Treasure	(P)	Golden	Tall	Oct. 10	7.50
Golden Spoon	(Spoon)	Golden	Med.	Oct. 10	6.00
*Yel. Blanket	(B)	Brt. Lemon	Med.	Oct. 10	6.50
Bright Forecast	(P)	Brt. Lemon	Med.	Oct. 10	7.00
*Goldrush	(S)	Lemon	Med.	Oct. 10	7.00
Sweepstake	(P)	Lemon	Med.	Oct. 12	7.50
*Lemonade	(P)	Ivory Yel.	Med.	Oct. 12	7.00
*Valiant	(L. Inc)	Light Golden	Med.	Oct. 15	15.00
*Gold Lode	(L. Inc)	Golden	Med.	Oct. 15	7.00
Rodell Imp.	(B)	Light Lemon	Med.	Oct. 15	6.00
Yel. Irene	(B)	Light Lemon	Med.	Oct. 15	6.50
Buttercup (H) (New)	(L. Inc)	Golden	Short	Oct. 15	12.50
*Honeysweet	(L. Inc)	Golden Yel.	Med.	Oct. 15	15.00
Sarasota (New)	(P)	Brt. Lemon	Med.	Oct. 15	12.50
BRONZE & RED					
Early Harvest	(CD)	Mah. Orange	Short	Sept. 8	7.50
Harbinger	(D)	Golden Br.	Short	Sept. 8	7.50
Glow Worm	(D)	Orange Scarlet	Short	Sept. 8	7.50
*W. P. Snyder	(LP)	Apr. Orange	Med.	Sept. 10	7.50
Autumn Song	(D)	Wine Rose	Med.	Sept. 10	6.50
Apache	(LD)	Red & Gold	Med.	Sept. 15	12.50
Autumn Tide	(D)	Coral Salmon	Med.	Sept. 15	6.50
Red Gold	(B)	Red & Gold	Med.	Sept. 15	7.00
Orloma	(C)	Apr. Bronze	Med.	Sept. 15	10.00
Flamboyant	(D)	Orange Br.	Med.	Sept. 15	15.00
Overly	(C)	Bronze	Med.	Sept. 20	12.50
Sept. Bronze	(B)	Golden Br.	Med.	Sept. 20	6.00
Goblin	(P)	Golden Br.	Tall	Sept. 20	7.00
Red Glow	(P)	Dark Red	Med.	Sept. 20	7.50
*Orsona	(C)	Red & Bronze	Med.	Sept. 20	10.00
Scarlet Crimson	(D)	Brt. Red	Med.	Sept. 20	6.50
Mme. Cadillac	(P)	Raspberry Wine	Short	Sept. 20	10.00
Alpena	(D)	Red	Med.	Sept. 25	15.00
Rouge Cushion	(C)	Brt. Red	Short	Sept. 25	8.00
Br. Wonder	(P)	Rosewood	Med.	Sept. 25	7.00
Champ. Cushion	(CD)	Dp. Bronze	Short	Sept. 25	6.00
Comd. Cushion	(CD)	Red	Short	Sept. 25	6.00
Mah. Cushion	(CD)	Jasper Red	Short	Sept. 25	6.00
Marionette	(P)	Rust Red	Med.	Sept. 25	7.50
Holiday (H)	(P)	Golden Br.	Med.	Sept. 25	8.00
Elite Cushion	(C)	Salmon Br.	Short	Sept. 25	8.00
*Remembrance	(LD)	Dp. Carmine	Med.	Sept. 28	7.50
Kath. Lehman	(LD)	Orange Br.	Med.	Sept. 28	7.00
Admiration	(LD)	Salmon Fawn	Med.	Sept. 28	6.50
Jubilee (H)	(P)	Crimson	Med.	Oct. 1	9.00
Mogul	(P)	Orange Rust	Med.	Oct. 1	8.00
Reverie	(D)	Buff Br.	Med.	Oct. 1	12.50
Iron Mountain	(P)	Deep Red	Med.	Oct. 1	15.00
Magnificent	(LD)	Plum Red	Tall	Oct. 1	8.00
Red Cloud (Cushion)	(CD)	Scarlet	Med.	Oct. 1	7.00
Red Riding Hood	(D)	Brt. Red	Med.	Oct. 1	6.50
Sam Williston (Cushion)	(CS)	Deep Red	Short	Oct. 1	6.50
Gondolier	(LD)	Crimson	Med.	Oct. 1	12.50
Bonfire	(D)	Brt. Red	Med.	Oct. 1	7.50
Regina (New)	(LD)	Apricot Br.	Med.	Oct. 1	10.00
Card. Spoon	(Spoon)	Red Bronze	Med.	Oct. 1	7.00
Firecracker	(D)	Mahogany	Tall	Oct. 5	7.50
Cydonia	(LD)	Mahogany	Tall	Oct. 5	6.00
*Sept. Cheer	(S)	Cherry Red	Med.	Oct. 5	6.00
Burgundy	(LD)	Wine Red	Tall	Oct. 5	6.00
Ruby Pompon	(P)	Ruby Crimson	Med.	Oct. 5	6.00
Red Velvet	(LD)	Dk. Crimson	Med.	Oct. 5	7.50
*Mona	(P)	Rust Bronze	Med.	Oct. 5	7.50
Avalon	(P)	Orange Bronze	Tall	Oct. 5	8.00
Courageous	(LD)	Dark Ruby	Med.	Oct. 5	6.50

Note: Above prices are for 100 cuttings. Prices for larger quantities on page 28.

A.B.C. Supreme Quality Rooted Cuttings

Garden Varieties

Variety	Size & Type	Color	Height	Matures	Price Per 100
BRONZE & RED					
*Mrs. DuPont	(LD)	Coral Buff	Tall	Oct. 5	7.00
Beacon	(LD)	Coral Apr.	Tall	Oct. 8	7.00
Buckeye	(P)	Salmon Br.	Med.	Oct. 8	9.00
Aviator	(P)	Copper	Med.	Oct. 8	6.50
Success	(LP)	Dp. Crimson	Med.	Oct. 8	7.50
Miguel	(D)	Raspberry Red	Tall	Oct. 8	10.00
*D Calumet (H) (New)	(D)	Apricot	Med.	Oct. 10	10.00
Huntsman	(LD)	Scarlet Orange	Tall	Oct. 10	7.50
Carnival	(LP)	Burnt Orange	Med.	Oct. 10	7.00
*Caravan	(LD)	Salmon Br.	Med.	Oct. 10	7.50
Blueblood	(D)	Amaranth Red	Tall	Oct. 10	7.50
Carmine Queen	(LP)	Carmine	Tall	Oct. 10	7.50
*Bamboo	(S)	Buff Orange	Tall	Oct. 10	7.50
Fireside	(D)	Burnt Orange	Tall	Oct. 10	7.50
Admiral	(D)	Dark Red	Med.	Oct. 12	7.50
Fashion	(D)	Rosewood	Med.	Oct. 12	7.50
Witchery	(D)	Golden Br.	Med.	Oct. 12	7.00
*James Stewart	(P)	Apr. Gold	Tall	Oct. 15	7.00
Robinhue	(LD)	Dark Red	Tall	Oct. 15	7.50
Rajah	(S)	Scarlet	Tall	Oct. 15	7.50
Chopin (New)	(L. Inc)	Lt. Bronze	Med.	Oct. 15	12.50
Arvis (New)	(P)	Bronze	Tall	Oct. 15	12.50
PINK & LAVENDER					
Gladness	(D)	China Rose	Short	Aug. 28	7.00
Cecil Beed	(D)	Deep Lav.	Med.	Sept. 1	8.00
Dr. Longley	(D)	Rose Pink	Med.	Sept. 1	8.00
Sal. Precose	(LD)	Salmon Pink	Short	Sept. 1	7.00
Rosa	(C)	Rose Pink	Med.	Sept. 5	12.50
*Purple Star	(P)	Purple	Med.	Sept. 5	6.50
Joan Helen	(D)	Dk. Purple	Med.	Sept. 10	6.50
*D Nye's Favorite	(D)	Lavender	Med.	Sept. 10	7.00
*Orchid Helen	(D)	Orch. Lav.	Med.	Sept. 10	7.50
Royal Robe	(D)	Purple	Med.	Sept. 15	9.00
Chippewa	(LD)	Brt. Purple	Med.	Sept. 15	6.50
Fairbow	(P)	Lav. Pink	Med.	Sept. 20	7.00
Tapestry	(LD)	Brt. Pink	Med.	Sept. 20	7.00
Heather Bloom	(D)	Heather Pink	Med.	Sept. 20	6.50
*Alert	(LD)	Dk. Purple	Med.	Sept. 20	6.00
Olive Longland	(LD)	Apr. Salmon	Med.	Sept. 25	6.00
Imp. Early Wonder	(P)	Lavender	Med.	Sept. 25	7.50
*Spellbound	(D)	Lavender	Med.	Sept. 25	6.50
Capt. J. Smith	(C)	Lav. Pink	Short	Sept. 25	6.00
*Maj. Cushion	(C)	Lavender	Short	Sept. 25	6.50
Cecelia	(C)	Purple	Short	Sept. 25	7.00
Rosita	(B)	Lavender Rose	Med.	Sept. 28	6.50
Malinda Brown	(P)	Lavender Rose	Med.	Sept. 28	8.00
Betty	(LD)	Pk. Rose Ctr.	Tall	Sept. 28	7.50
Misty Maid	(D)	Light Pink	Med.	Sept. 28	7.00
Pat. Lehman	(D)	Peach Pink	Tall	Sept. 28	7.00
Sonny	(P)	Deep Lav.	Med.	Oct. 1	15.00
Fascination	(LD)	Lav. Pink	Med.	Oct. 1	9.00
*D Myrtle Walgreen	(LP)	Amar. Purple	Med.	Oct. 1	7.00
*Tiffany Rose	(S)	Deep Rose	Med.	Oct. 1	6.50
*Mischieff	(CS)	Purple	Short	Oct. 1	12.50
Alex Cummings	(LD)	Deep Rose	Tall	Oct. 3	9.00
Northern Queen	(D)	Lavender	Med.	Oct. 5	15.00
Corona (H) (New)	(S)	Dp. Lavender	Tall	Oct. 10	10.00
*Petrisian Mauve	(D)	Mauve	Med.	Oct. 5	10.00
*Petrisian Pink	(D)	Lt. Pink	Med.	Oct. 5	10.00
*Petrisian Rose	(D)	Rose Pink	Med.	Oct. 5	10.00
*Lav. Lady	(D)	Lav. Pink	Tall	Oct. 5	7.50
Ponca	(SD)	Dk. Lav.	Short	Oct. 10	7.50
Dream Girl	(P)	Lt. Lav.	Med.	Oct. 10	7.50
*Courtier	(D)	Lav. Pink	Med.	Oct. 10	7.50
*Time	(LP)	Lavender	Med.	Oct. 10	7.00
Orch. Spoon	(Spoon)	Orch. Lav.	Med.	Oct. 10	7.50
Rose Spoon	(Spoon)	Lav. Rose	Med.	Oct. 10	6.00
Lassie	(LD)	Dk. Pink	Med.	Oct. 10	7.50
*Masquerade	(C)	Lav. Rose	Med.	Oct. 10	7.50
*Joybringer	(D)	Salmon Rose	Short	Oct. 10	7.00

Note: Above prices are for 100 cuttings. Prices for larger quantities on page 28.

Garden Varieties

Variety	Size & Type	Color	Height	Matures	Price Per 100
<i>Variety</i>					
PINK & LAVENDER					
Ronnie	(B)	Dk. Lav.	Med.	Oct. 12	7.50
Elizabeth Hood	(LD)	Lav. Pink	Med.	Oct. 12	8.00
Allegro	(P)	Shrimp Pk.	Med.	Oct. 12	7.50
Adagio	(P)	Raspberry Rose	Tall	Oct. 12	7.00
Sonnet	(P)	Salmon Pink	Med.	Oct. 15	9.00
*Jewell	(P)	Lav. Pink	Med.	Oct. 15	7.00
Enterprise	(P)	Amaranth	Tall	Oct. 15	8.00
Elizabeth Hood	(LD)	Lav. Pink	Med.	Oct. 15	8.00

Large flowering Mums which are normally grown in the greenhouse,
but also are good outside, should be disbudded to one bloom per stem.

WHITE

Silver Sheen	M-Inc.	White	Tall	Oct. 20	6.50
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YELLOW

Harvest Golden	M-Inc.	Deep Golden	Tall	Oct. 10	7.50
*D Gold Lode	M-Ref.	Lemon	Tall	Oct. 15	7.00
Celestra	M-Inc.	Lemon	Tall	Oct. 15	7.00
Mrs. Kidder	L-Inc.	Dp. Lemon	Tall	Oct. 15	6.50
Buttercup (H) (New)	M-Inc.	Golden	Short	Oct. 15	12.50
Valiant	M-Inc.	Lt. Golden	Med.	Oct. 15	15.00
Honeysweet	M-Inc.	Lt. Golden	Med.	Oct. 15	15.00

BRONZE & RED

Amber Bright	M-Inc.	Golden Yellow	Med.	Oct. 15	7.50
Chopin (New)	M-Inc.	Amber Bronze	Med.	Oct. 15	12.50

PINK & LAVENDER

Pk. Chief	L-Inc.	Lavender	Tall	Oct. 15	7.50
Major Bowes	L-Inc.	Dp. Lavender	Tall	Oct. 15	6.50

Note: Above prices are for 100 cuttings. Prices for larger quantities on page 28.

EASTER DATES

1954 .....April 18	1958 .....April 6	1962 .....April 22
1955 .....April 10	1959 .....March 29	1963 .....April 14
1956 .....April 1	1960 .....April 17	1964 .....March 29
1957 .....April 21	1961 .....April 2	1965 .....April 18

BIRTHDAY FLOWERS

Jan.Carnations	May .....Lily-of-the-Valley	Sept. ....Asters
Feb. ....Violets	June .....Roses	Oct. ....Calendulas
Mar. ....Jonquils	July .....Larkspur	Nov. ....Chrysanthemums
April ....Sweetpeas	Aug. ....Gladioli	Dec. ....Narcissus

WEDDING ANNIVERSARIES

1st Yr. ....Paper	9th Yr. ....Willow	25th Yr. ....Silver
2nd Yr. ....Cotton	10th Yr. ....Tin	30th Yr. ....Pearl
3rd Yr. ....Leather	11th Yr. ....Steel	35th Yr. ....Coral
4th Yr. ....Fruit, Flowers	12th Yr. ....Silk, Linen	40th Yr. ....Ruby
5th Yr. ....Wooden	13th Yr. ....Lace	45th Yr. ....Sapphire
6th Yr. ....Sugar	14th Yr. ....Ivory	50th Yr. ....Gold
7th Yr. ....Wool	15th Yr. ....Crystal	55th Yr. ....Emerald
8th Yr. ....Pottery	20th Yr. ....China	75th Yr. ....Diamond

A.B.C. Supreme Quality Rooted Cuttings

PRICES PER 100

Price Classification	50-250	300-450	500-950	1000-2450	2500 up
S-4	\$ 6.00	\$ 5.70	\$ 5.40	\$ 5.10	\$ 4.80
S-3	6.50	6.15	5.85	5.50	5.20
S-2	7.00	6.65	6.30	5.95	5.60
S-1	7.50	7.15	6.75	6.40	6.00
P-3	8.00	7.60	7.20	6.80	6.40
P-2	9.00	8.55	8.10	7.65	7.20
P-1	10.00	9.50	9.00	8.50	8.00
N-9	12.50	12.00	11.50	11.00	10.50
P-0	15.00	14.25	13.50	12.75	12.00

COLLECTIONS

When varieties are not specified, orders may be placed for any general grouping of varieties available at time of shipment. These orders must be in full 300 box units.

1 box (300 R. C.).....	\$ 17.10
2 boxes (600 R. C.).....	32.40
3 boxes (900 R. C.).....	48.60
4 boxes (1200 R. C.).....	61.20
5 boxes (1500 R. C.).....	76.50
6 boxes (1800 R. C.).....	91.80
7 boxes (2100 R. C.).....	107.10
8 boxes (2400 R. C.).....	122.40
9 boxes (2700 R. C.).....	129.60
10 boxes (3000 R. C.).....	144.00

For Growers who are not familiar with Garden Varieties, but who want a well balanced assortment, we offer the following Collections, which include the better varieties.

COLLECTION #1

Taller Varieties for cutting.

COLLECTION #2

For Pots or Bedding

COLLECTION #3

50% for Cutting
50% for Bedding

COLLECTION #4

For Easter, Mother's Day
or Memorial Day Pots

COLLECTION #5

Cushion Varieties Only

PRICES PER 100

300-450	500-1150	1200-2350	2400 & up
\$5.70	\$5.40	\$5.10	\$4.80

CHANGES OR CANCELLATIONS on orders must be received at least 30 days before shipping date

Carnation Rooted Cuttings for 1955 Season

Cuttings will be available from December on

WHITE			RED		
	Per 100	Per 1000		Per 100	Per 1000
Aurora. Large White.....	\$15.00	\$125.00	nCardinal Sim. New. Shade lighter than Wm. Sim.	20.00	150.00
Frosty. Pure White.....	20.00	160.00	Dk. Red Sim. Red.....	20.00	150.00
Hoosier Spice. White.....	20.00	175.00	Ember Sim. Lighter than Wm. Sim.....	20.00	150.00
Jupiter. Large White.....	13.00	105.00	*Jumbo Cardinal. Brilliant Red.....	15.00	125.00
Northland. A very popular white.....	12.00	100.00	*Red Beauty. Scarlet.....	15.00	125.00
nOlivette Improved.....	15.00	125.00	*Tom Knipe. Fine Red.....	15.00	125.00
White Baums Supreme. White.....	15.00	120.00	*William Sim. Cardinal Red.....	20.00	150.00
*White Sidney Littlefield. New.....	20.00	150.00	*Woosters Scarlet. New Red.....	12.00	100.00
White Sim. White.....	15.00	125.00			
YELLOW			MAROON		
nCanary Queen. Bright lemon.....	18.00	150.00	C. W. Weld. Dark Red Maroon.....	10.00	80.00
Colorado Gold. Yellow.....	20.00	150.00	Tilly. Red Maroon.....	20.00	160.00
nDesert Sun. Pale Gold Buff.....	18.00	150.00	*Topper. Velvety Maroon.....	20.00	150.00
*Harvest Moon. Orange yellow.....	20.00	150.00	Woburn. Maroon.....	10.00	90.00
Midas. Yellow.....	15.00	125.00			
Miller's Yellow. Yellow.....	12.00	100.00			
*Pattens Yellow. Yellow.....	20.00	150.00			
Shirley Ann. Yellow.....	15.00	125.00			
LIGHT PINK			LAVENDER & PURPLE		
Catron Shell Pink Sim. Sport of Wm. Sim.....	20.00	150.00	Lavender Rose. True Lavender.....	15.00	125.00
nGordon. Delicate shell pink.....	18.00	150.00	Royalty. Royal Purple.....	22.00	180.00
Hercules Virginia. Light Pink.....	15.00	125.00			
Janie. Light Pink.....	20.00	150.00			
nLight Pink Littlefield.....	20.00	150.00			
Light Pink Sim. Light Pink.....	20.00	150.00			
Mr. Pink. Light Pink.....	20.00	150.00			
Netta. Light Pink.....	15.00	125.00			
Petersen's Pink Sim. Sp. of Wm. Sim.....	20.00	150.00			
Shell Pink Sim.....	15.00	125.00			
Virginia Supreme. Light Pink.....	12.00	100.00			
MEDIUM PINK			VARIEGATED		
nBelvedere. Medium Pink.....	20.00	150.00	Barbara Brigham. Orange with pink stripe.....	10.00	90.00
Sidney Littlefield. Medium Pink.....	15.00	125.00	Candy Lee. Variegated.....	20.00	150.00
Virginia Irvin. Medium Pink.....	12.00	100.00	Cooper Variegated Sim. Red and white.....	20.00	150.00
Virginia Rose. Medium Pink.....	10.00	80.00	Crimson King. Dark Crimson.....	22.00	180.00
SALMON PINK			Edith. Variegated.....	20.00	150.00
Apollo. Salmon Pink.....	15.00	125.00	Gaiety. White & Red Variegated.....	20.00	150.00
Debbie. Salmon Pink.....	20.00	150.00	Geigers Variegated Sim. "Mamie".....	15.00	125.00
*Janie. Light Salmon.....	20.00	150.00	Harlequin. Variegated novelty.....	15.00	125.00
Salmon Sim. Salmon Pink.....	20.00	150.00	Hoosier Gold. Yellow with Pink.....	20.00	175.00
DARK PINK			Mamie. White with Red spots.....	20.00	150.00
Baums Supreme. Beautiful Cerise Pink.....	15.00	120.00	*Mohawk. Yellow with pink stripes.....	20.00	150.00
Canup's Pride. Cerise Cherry Pink.....	15.00	120.00	Orchid Dandy. Orchid Variegated.....	20.00	160.00
Charlene. Dark Pink.....	20.00	150.00	nPeppermint Stick Littlefield. Variegated pink	20.00	150.00
*Citation. Striking Rose Pink, Silver Edge.....	15.00	125.00	Pelargonium. White Overlaid with Maroon	15.00	100.00
Dark Virginia Hercules. Dark Pink.....	12.00	100.00	Raspberry Ice. White with pale orchid.....	15.00	125.00
*nSaugus Pink. Soft Deep Pink.....	18.00	150.00	Sarah Jane Knipe.		
Virginia Miller. Dark Pink.....	12.00	100.00	Bright purple with Silver edge.....	20.00	150.00
			Saturn. Orange Bronze.....	12.00	100.00
			Scarlet Sim. Variegated.....	20.00	150.00
			Scarlet King. White Overlaid with scarlet.....	15.00	125.00
			nScarlet Queen. Orange Variegation.....	15.00	125.00
			*Starlight. White with Pink Stripes.....	15.00	125.00
			*Symphony. Reddish Purple stripes on Mauve	20.00	150.00
			*nTetra-Sarah Jane. Magenta with Silver Edges..	25.00	200.00
			Unique.....	15.00	125.00
			nVariegated Littlefield. Medium Pink.....	20.00	150.00

Minimum order 100 of a Variety—250 at the 1000 rate. Variety Harvest Moon, minimum order 250.

Varieties marked (*) are sold under growers patent or restricted agreement. Varieties marked (n) are new and more recent introductions.

YODER BROS. CARNATION ROOTED CUTTINGS FOR 1955

Achilles. A large clear white.....	P-2	Venus. Salmon Pink.....	P-3
Adonis. White.....	P-3	Ceres. King Cardinal color.....	P-3
Aurora. A large white.....	P-3	Neptune. Scarlet.....	P-3
Jupiter. A large white.....	P-3	Siren. A bright scarlet.....	P-2
Juno. Medium sized white.....	P-2	Titan. Intense crimson red.....	P-2
Apollo. Salmon Pink.....	P-3	Mentor. Rose Pink.....	P-1
Aphrodite. Light Pink.....	P-3	Vesta. Crimson.....	P-1
Cupid. A true Briarcliff Pink.....	P-2	Vulcan. Crimson—maroon group.....	P-3
Diana. Light Pink.....	P-3	Cassandra. A lively yellow.....	P-2
Eros. Light Pink.....	P-2	Midas. Yellow.....	P-3
Minerva. Deep scarlet-pink.....	P-3	Saturn. Bronze.....	P-3
Pandora. A dark pink.....	P-2	Orion. Glowing ember.....	P-3

Prices for 50 or multiples of 50 of a variety
per shipment are indicated in this table.

Price Classification	Per 50			Per 100		
	50	100-250	300-450	500-950	1000-2450	2500 up
P-1	\$7.50	\$14.25	\$13.50	\$12.75	\$12.00	\$11.25
P-2	6.75	12.80	12.15	11.45	10.80	10.10
P-3	12.00	11.50	11.05	10.55	10.10	9.60

No. C.O.D. Orders Accepted. Prices subject to change without notice.

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P-2	9.00	8.55	8.10	7.65	7.20
P-1	10.00	9.50	9.00	8.50	8.00
N-9	12.50	12.00	11.50	11.00	10.50
P-0	15.00	14.25	13.50	12.75	12.00

WHITE POMPONS

Quantity	Variety	Price Class Amount	Quantity	Variety	Price Class Amount	Quantity	Variety	Price Class Amount	Quantity	Variety	Price Class Amount
6 Week Varieties			8 Week Varieties			9 Week Varieties					
.....	Sept. Morn	S-1.....	.....	Maestro	S-1.....	.....	Norona	S-2.....	.....	Songster	S-3.....
.....	White Wonder	S-1.....	.....	Renown	S-1.....	.....	Pristine	S-3.....	.....	Cottontop	S-1.....
.....	Chris. Columbus	S-3.....	.....	Classic	S-2.....	.....	Minong	S-1.....	.....	Shooting Star	S-1.....
.....	Ostara	P-1.....	.....	Silverplate	S-2.....	.....	Silvertone	P-2.....	.....	Vesta	P-1.....
7 Week Varieties			.....			.....			.....	Granite State	S-3.....
.....	Avalanche	S-1.....	.....	Silver Ball	S-4.....	.....	Popcorn	S-3.....	.....	Cream Halo	P-1.....
.....	White Cloud	S-1.....	.....	Calif. White Daisy	S-2.....	.....	White Popcorn	S-2.....	.....	Arcadia	S-2.....
.....	Horizon	S-2.....	.....	(Kimoto's White)		.....	Keepsake	S-2.....	.....	Silver Cloud	P-2.....
.....	Marshmellow	P-2.....	.....	Irene	S-2.....	.....	Pinocchio	S-3.....	.....	Halo	S-3.....
									.....	Sea Gull	S-3.....
									.....	White Doty	S-3.....

PINK POMPONS

Quantity	Variety	Price Class Amount	Quantity	Variety	Price Class Amount	Quantity	Variety	Price Class Amount	Quantity	Variety	Price Class Amount
.....	Dark Valencia	S-3.....	.....	Dark Enchantress	S-2.....	.....	Dk. Pk. Minstrel	P-1.....	.....	Coronet	S-1.....
.....	Dubonnet Valencia	S-3.....	.....	Argyle	P-2.....	.....	Imp. Pk. Minstrel	P-1.....	.....	Rosalind	S-2.....
.....	Orchid Valencia	S-1.....	.....	Debutante	S-3.....				.....	Defiance	S-2.....
.....	Salmon Valencia	S-2.....	.....	Imp. Dk. Supreme	S-2.....		14 Week Varieties		.....	Medallion	S-2.....
.....	Heritage	S-2.....	.....	Minstrel	S-3.....	.....	Riviera	S-3.....	.....	Rose Medallion	P-3.....
	13 Week Varieties		.....	Lt. Pk. Minstrel	S-3.....	.....	Dk. Riviera	S-3.....	.....	Pk. Treas. Island	S-3.....
.....	Enchantress	S-2.....	.....	Ruffled Supreme	S-2.....	.....	Serrated Riviera	P-3.....	.....	Lynda McLane	P-1.....

WHITE STANDARDS

Quantity	Variety	Price Class Amount	Quantity	Variety	Price Class Amount	Quantity	Variety	Price Class Amount	Quantity	Variety	Price Class Amount
	8 Week Varieties			10 Week Varieties		.....	Monument	S-3.....		12 Week Varieties	
.....	Silver Sheen	S-3.....	.....	Betsy Ross	S-3.....				.....	Chattanooga	S-3.....
.....	White Chief	S-2.....	.....	Giant Betsy Ross	S-4.....		11 Week Varieties		.....	December Glory	S-4.....
.....	Christina	S-2.....	.....	Ind. White	S-4.....	.....	Sterling	S-2.....	.....	Margaret Moeller	S-3.....
	9 Week Varieties		.....	Richard Mandel	S-2.....	.....	Marketeer	S-3.....		13 Week Varieties	
.....	Nightingale	S-2.....	.....	Jean Elizabeth	S-3.....	.....	Mefo	S-4.....	.....	December White	S-2.....
.....	Granite State	S-3.....	.....	Crystal Queen	S-3.....	.....	White Frick	S-2.....	.....	White Mistletoe	S-2.....
.....	Ambassador	S-2.....	.....	Wh. Fern Edwards	S-3.....	.....	Indiana Market	S-1.....	.....	Snowline	S-2.....
.....	Wilson's White	S-2.....	.....	Mrs. Iwata	P-1.....	.....	Cream Mefo	S-2.....	.....	Smith's White	S-4.....
.....	Albatross	S-4.....	.....	White Pockett	S-2.....	.....	White Peter John	S-3.....	.....	Smith's Cream Wh.	P-1.....
.....	Snow White	S-3.....									

YELLOW STANDARDS

Quantity	Variety	Price Class Amount	Quantity	Variety	Price Class Amount	Quantity	Variety	Price Class Amount	Quantity	Variety	Price Class Amount
	8 Week Varieties		.....	Sunglow	S-2.....	.....	Yellow Pockett	S-2.....		12 Week Varieties	
.....	Gold Lode	S-2.....	.....	Yellow Albatross	P-1.....	.....	Yellow Monument	S-3.....	.....	Dk. Yel.	
.....	Celestra	S-2.....	.....	Yellow Ivanhoe	P-1.....	.....	Honey Dew	S-1.....	.....	Chattanooga	P-2.....
.....	Harvest Golden	S-1.....	.....	Golden Glory	S-2.....				.....	Yel. Chattanooga	S-3.....
.....	Mrs. Kidder	S-3.....	.....	Good News	S-4.....	.....	11 Week Varieties		.....	Golden Pearson	S-3.....
.....	Butterball	S-2.....				.....	Yellow Marketeer	P-3.....	.....	Mrs. Calkins	S-1.....
.....	Blazing Gold	S-4.....		10 Week Varieties		.....	Bonnaffon Deluxe	S-4.....	.....	Sungold	S-3.....
.....	Honeysweet	P-0.....	.....	Imp. Ind. Yellow	S-4.....	.....	Friendly Rival	S-3.....	.....	Golden Mrs. Ross	S-3.....
.....	Valiant	P-0.....	.....	Ind. Yellow	S-4.....	.....	Yellow Mefo	S-4.....	.....	Yellow Moeller	S-2.....
	9 Week Varieties		.....	Dk. Ind. Yel. (Pots)	S-4.....	.....	Cream Mefo	S-2.....		13 Week Varieties	
.....	Smith's Superlative	S-1.....	.....	Sue Sally Jones	S-2.....	.....	Purdue	S-1.....	.....	Golden Mistletoe	S-1.....
.....	Yel. Ambassador	S-2.....	.....	Yellow Queen	S-3.....	.....	Harvester	S-3.....	.....	Chalice	S-1.....
.....	Yellow Bergen	S-2.....	.....	Jamboree	S-1.....	.....	Marie DePetris	S-3.....	.....	Tobin's Yellow	S-3.....
			.....	Yellow Beauty	S-2.....	.....	Yellow Peter John	S-3.....	.....	Meteore	S-3.....
									.....	Dauntless	S-2.....

BRONZE & RED STANDARDS

Quantity	Variety	Price Class Amount	Quantity	Variety	Price Class Amount	Quantity	Variety	Price Class Amount	Quantity	Variety	Price Class Amount
	8 Week Varieties		.....	Apricot Queen	S-2.....	.....	Anaconda	S-2.....	.....	Br. Peter John	S-3.....
.....	Mayfords Triumph	S-1.....	.....	Detroit News	S-4.....	.....	Oakdale	S-1.....		12 Week Varieties	
.....	Amber Bright	S-1.....	.....	Royal Bronze	P-3.....	.....	Br. Orchid Queen	S-2.....	.....	Gladys Pearson	S-3.....
	9 Week Varieties		.....	Ind. Bronze	S-4.....	.....	Mrs. Stahelin	S-2.....	.....	Oak Leaf	S-3.....
.....	Hilda Bergen	S-2.....	.....	Ind. Gold. Bronze	S-1.....	.....	Mrs. Roy	S-3.....	.....	Muto's Crimson	S-2.....
.....	Glitters	S-1.....	.....	Dk. Ind. Bronze	P-3.....		Garnet King	S-2.....		13 Week Varieties	
.....	Red Glitters	S-1.....	.....	Delaware	P-1.....	.....	11 Week Varieties		.....	Bronze Mistletoe	S-2.....
.....	Ivanhoe	S-2.....				.....	Br. Frick	S-2.....			

PINK STANDARDS

Quantity	Variety	Price Class Amount	Quantity	Variety	Price Class Amount	Quantity	Variety	Price Class Amount	Quantity	Variety	Price Class Amount
	8 Week Varieties			10 Week Varieties		.....	Pink Fern Edwards	S-3.....	.....	Dk. Peter John	S-3.....
.....	Pink Chief	S-3.....	.....	J. W. Prince	S-2.....	.....	Queen of Pinks	S-4.....	.....	Lt. Peter John	S-3.....
.....	Maj. Bowes	S-1.....	.....	Ind. Pink	S-4.....	.....	Pink Pockett	S-2.....	.....	Thanks. Pink	S-3.....
	9 Week Varieties		.....	Orchid Queen	S-2.....		11 Week Varieties		.....	Ed. Seidewitz	S-2.....
.....	Sugarplum	S-1.....	.....	Lavender Queen	S-2.....	.....	Aristocrat	S-2.....		13 Week Varieties	
.....	Bunbu	S-2.....	.....	Dk. Orchid Queen	S-3.....	.....	Helen Frick	S-3.....	.....	Pink Mistletoe	S-2.....
			.....	Phillip Kay	S-3.....	.....	Rose Delight	S-1.....			

SPIDER TYPES

Quantity	Variety	Price Class Amount	Quantity	Variety	Price Class Amount	Quantity	Variety	Price Class Amount	Quantity	Variety	Price Class Amount
.....	Queens Lace	S-3.....	.....	Yel. Rayonnante	S-2.....	.....	Mrs. Walker	S-1.....	.....	Luyona	P-3.....
.....	Kay Tashima	S-1.....	.....	Lorraine	S-1.....	.....	Mary Garden	S-2.....	.....	Yel. Curly Spider	S-1.....
.....	White Rayonnante	S-2.....	.....	Dalwin	P-3.....	.....	Rayonnante	S-2.....	.....	Antique	P-1.....
.....	Moribana	P-1.....	.....	Waikiki	S-1.....	.....	Peggy Hoover	S-1.....	.....	Mrs. Eisenhower	P-1.....
.....	Yellow Lace	S-3.....	.....	Gena Harwood	S-2.....	.....	Silver Queen	P-1.....	.....	Sue Sally Jones	S-1.....
.....	Gold Lace	P-3.....	Nomago	S-2.....	Wh. Mary Garden	P-1.....	Bunbu	S-2.....
.....	Hooked Yel. Lace	P-3.....	Mamoru	S-1.....	Kegons White	S-3.....			

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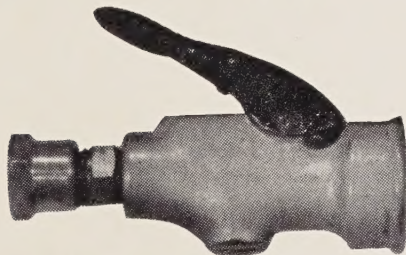
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HOSE—Greenhouse

"DURO"—Very finest grade, red rubber hose, especially designed for greenhouse use. Very flexible.

2-ply—Heavy duty, high pressure.

$\frac{3}{4}$ "—Uncoupled. Per ft.\$0.49
50-ft. length—Coupled 25.75

KOROSEAL PLASTIC HOSE

B. F. Goodrich's tough, durable, top-selling plastic hose. Fast-flow, flexible, lightweight. Handles pressures up to 50 lbs. Green.

$\frac{1}{2}$ " Garden Hose

	Each	Case of 5
25 ft. cpld. (\$5.75 retail).....	\$4.17	\$19.80
50 ft. cpld. (\$9.80 retail)	7.11	33.75

$\frac{3}{4}$ " Growers Hose

25 ft. cpld. Each.....	\$ 8.75
50 ft. cpld. Each	\$15.75

WOOD POT LABELS

	Per 1000 Plain	Painted
4x $\frac{5}{8}$ ins. (1000 per carton) ..	\$2.90	\$3.40
5x $\frac{5}{8}$ ins. (1000 per carton) ..	3.10	3.70
6x $\frac{5}{8}$ ins. (1000 per carton) ..	3.40	4.15
8x $\frac{5}{8}$ ins. (500 per carton) ..	5.00	6.20
10x $\frac{5}{8}$ ins. (500 per carton) ..	6.00	7.30
12x $\frac{5}{8}$ ins. (500 per carton) ..	7.00	8.60

WOOD GARDEN LABELS

8x $\frac{7}{8}$ ins. (250 per carton) \$	7.30	\$ 8.50
10x $\frac{7}{8}$ ins. (250 per carton)	8.30	9.60
12x1 $\frac{1}{8}$ ins. (100 per carton)	14.00	16.00

WOOD TREE LABELS

3 $\frac{1}{2}$ x $\frac{5}{8}$ ins., copper-wired....	\$3.40	\$4.10
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WEATHERPROOF PENCILS

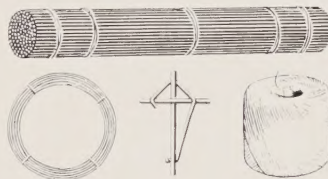
Each....10c	Doz....\$1.00	Gross....\$10.00
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CANE STAKES—Pencil Thickness

	Per 1000	Per Bale
1 $\frac{1}{2}$ -ft. Green	\$ 3.50	\$ 6.00
2 -ft. Green	4.75	8.00
2 $\frac{1}{2}$ -ft. Green	5.75	10.00
3 -ft. Green	7.50	13.00
3 $\frac{1}{2}$ -ft. Green	9.50	16.50
4 -ft. Green	10.50	18.00

2000 to the bale.

GALVANIZED WIRE STAKES



	8-gauge		9-gauge	
	Per 100	Per 1000	Per 100	Per 1000
3 ft.	\$3.75	\$28.00	\$3.10	\$24.20
4 ft.	4.60	37.30	3.95	31.70
5 ft.	5.75	47.10	4.90	39.80
6 ft.	6.85	55.20	5.85	47.60
7 ft.	7.90	64.60	6.80	55.50
8 ft.	8.95	73.80	7.95	63.90

GALVANIZED BENCH WIRE

16-gauge, 50 lbs.	\$9.40
18-gauge, 50 lbs.	9.95

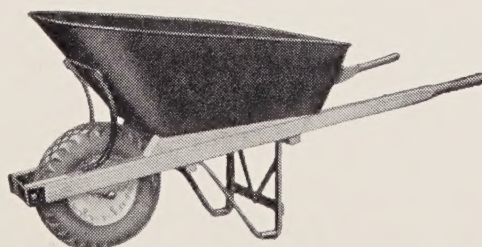
EVERLASTING STAKE FASTENERS

Per 500.....	\$2.50
Per 5000.....	\$24.00

COTTON TWINE

3 or 4-ply, 5-lb. bag	\$4.50
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WHEELBARROW—Steel

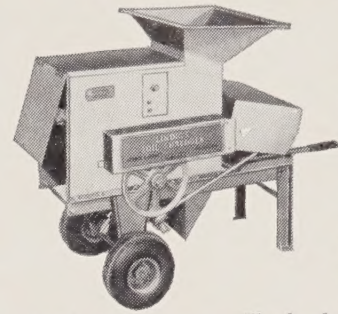


Built for heavy work and constant use. Steel tray, 35x30 in. Capacity 4 cu. ft. Ball-bearing wheel with rubber tire. Hardwood handles.

Each	\$23.50
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SOIL SHREDDERS

THE NEW IMPROVED LINDIG



The new Model B Lindig Soil Shredder is equipped with a newly developed ACTIONIZED shredding blade made of a special steel to resist the

most severe wear. Each shredding blade is free swinging. The stationary blades are individually mounted with a spring on each blade. This feature allows only the required opening to be made for a non-crushable object to pass through the shredder, and is found only in the Lindig patented soil shredder.

The new Model B shreds faster and more uniformly all soils, peat, manure, compost piles, leaf mold, sphagnum moss, shingle tow, and sods.

Model JR-B. For the small grower or as a second shredder for the large grower to use on the potting bench. Height 27", length 36". Hopper size 15" x 15". Rotor 7" wide with 3 sets of blades.

Without power	\$ 95.00
With 1/3 h.p. motor	136.00
With gas engine	151.50

Following models are 36" high and 46" overall. Steel wheels.

Model No. 1B-4. Feeder hopper size, 16 x 18 in. beater drum, 8 $\frac{1}{2}$ in. wide, with four rows of teeth. Without motor.....\$130.00

Model No. 1B-6. Same as Model No. 1B-4, except that beater drum has six rows of teeth. Designed for extra fine shredding. Without motor

Model No. 2B-6. Feeder hopper size, 16 x 20 in. Beater drum, 19 $\frac{1}{2}$ in. wide, with six rows of teeth. Without motor.....\$160.00

Model No. 2B-8. Same as Model No. 2B-6, except beater drum has eight rows of teeth. Designed for extra fine shredding. Without motor.

Electric Motor. $\frac{3}{4}$ h.p., for use with models 1B-4, 1B-6, or 2B-6. Each.....\$65.50
1 h.p. For use with Models 2B-6 or 2B-8. Each

Gasoline Engine. 1 $\frac{1}{2}$ h.p., for use with all models. Each

Rubber Tires. For use with all models. Per set

Screening Attachment. For use with all models. Designed to remove rocks, sticks, roots, and other undesirable material from the shredded soil.

For Models No. 1B-4 and 1B-6\$50.00
For Models No. 2B-6 and 2B-8 60.00

Larger models and conveyors also available. Send for detailed circular.

LARGER MODELS

Model 24. 40" high and 4 ft. in length. Capacity: 25 cu. yds. per hour. Designed primarily to be hand fed by 2 or 3 men. Shredding rotor: 24" wide with 56 blades. Pneumatic wheels. Without power..\$375.00

With power take-off

With 3 h.p. electric motor

With 5 h.p. electric motor.....

With 10 h.p. gasoline engine.....

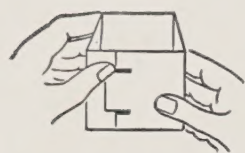
Model C24. Same as Model 24 with the addition of automatic feeding conveyor.

Model CL24. Same as Model 24 with the addition of automatic feeding and loading conveyors.

Write for detailed circular and prices of Models 24, C24, and CL24.

PLANT BANDS OF ALL TYPES

"Easi-Off"



Saves time and labor. Bands are removed without cutting; therefore, the dirt ball and roots are not disturbed.

WOOD PLANT BANDS

CAT.	Size in inches	Weight per 1000	Per 1000
No. M-310	1 3/4 x 1 3/4 x 2 1/2	18 lbs.	\$4.10
No. M-320	2 x 2 x 2 1/2	20 lbs.	4.50
No. M-340	2 1/2 x 2 1/2 x 3	28 lbs.	4.90
No. M-350	3 x 3 x 3	30 lbs.	5.30
No. M-360	3 x 3 x 4	38 lbs.	5.75
No. M-391	4 x 4 x 4	40 lbs.	6.75

LIGHT WOOD FLATS

For handling and shipping all sizes of Plant Bands.

Per 100

M-370; holds twelve 1 3/4-in. Bands	\$3.60
M-390; holds twelve 2-in. Bands	3.90
M-392; holds twelve 2 1/2-in. Bands	5.00
M-393; holds six 3-inch Bands	4.75
M-394; holds six 4-inch Bands	5.75

Shipped promptly from the factory in Michigan.

STAPLED WOOD PLANT BANDS

Shipped promptly from the factory in Illinois.

Sizes in inches	Per 1000	Sizes in inches	Per 1000
1 3/4 x 1 3/4 x 2 1/2	\$4.70	2 1/2 x 2 1/2 x 3	\$5.50
2 x 2 x 2 1/2	4.80	3 x 3 x 3	5.90
2 x 2 x 3	5.10	3 x 3 x 4	6.10
2 1/4 x 2 1/4 x 2 1/2	5.00	4 x 4 x 3	6.20
2 1/2 x 2 1/2 x 2 1/2	5.10	4 x 4 x 4	7.10

BIRD VITA-BANDS Nutrient Treated

Vita-Band H for 40-week growing period.
Vita-Band 10 for 10-week growing period.

Sold in Units of 1000 only	PRICES PER THOUSAND							
	1 1/2 x 1 1/2 x 2 1/2	1 3/4 x 1 3/4 x 2 1/2	2 x 2 x 2 1/2	2 x 2 x 3	2 1/2 x 2 1/2 x 3	3 x 3 x 3	4 x 4 x 3	4 x 4 x 4
VITA-BAND H	—	5.45	5.80	6.90	7.65	8.50	10.45	12.90
VITA-BAND 10	3.70	4.00	4.55	5.05	6.00	6.90	9.00	11.25

TOM THUMB FLATS

No. 1 for 1 doz. 1 3/4-inch Bands. No. 2 for 1 doz. 2-inch Bands.

Tom Thumb Flats Per 1000		Combination 1000 Flats 12,000 Vita-Band 10 Per 1000 Sets	
Size No. 1	Size No. 2	Size No. 1	Size No. 2
\$44.70	\$49.60	\$86.45	\$95.65

FERTILIZERS

AMMONIUM SULPHATE , 21% Nitrogen.	
25 lbs. \$ 1.75	50 lbs. \$ 3.25
100 lbs. 5.50	500 lbs. 26.25
1000 lbs. 50.00	Ton 95.00
CALCIUM SULPHATE , (Agricultural Gypsum).	
25 lbs. \$1.00	50 lbs. \$1.50
100 lbs. 2.50	500 lbs. 9.00
CHELATED IRON , "Sequestrene" 12%.	
1 lb. \$2.50	5 lb. \$8.75
50 lb. 55.00	
IRON SULPHATE , For acidifying the soil.	
10 lbs. 75¢	25 lbs. 1.50
50 lbs. 2.50	100 lbs. 4.50
MURIATE OF POTASH , (Potassium Chloride).	
62% Potash.	
100 lbs. \$ 4.75	500 lbs. \$21.25
NITRATE OF SODA , 16% Nitrogen.	
100 lb. bag \$ 5.50	500 lbs. \$26.25
POTASSIUM NITRATE , Analysis: 16-0-26.	
25 lbs. \$ 5.00	80 lbs. \$ 12.80
800 lbs. 112.00	Ton 260.00
SUPERPHOSPHATE , 20% Phos. (80 lb. bags).	
80 lbs. 2.00	480 lbs. 11.04
960 lbs. 21.12	Ton 42.75
SOLUBLE FERTILIZER (Kapco), Analysis:	
15-30-15 or 20-20-20 Specify which.	
25 lbs. \$ 5.50	80 lbs. \$16.00
800 lbs. 152.00	
VERTAGREEN , Analysis: 5-10-5.	
50 lbs. \$ 1.75	100 lbs. \$ 3.35

SHADING CLOTH

AMERICAN BLACK SHEEN SHADING CLOTH

For shading early chrysanthemums during the normal summer growing season in greenhouses, cloth houses, or outside, as it will bring your blooms in on schedule. Ideal for outdoor shading as it will allow the rain to penetrate and not lie in pools on top. Guaranteed fast black, closely woven, treated and pre-shrunk to produce 99% darkness.

Available in bolts approx. 36 inches wide or cut to any length. It can be sewn to any width in multiples of 36 in.

PRICES PER SQ. YD.	Unsewed	Sewed
100 sq. yds. or more	\$.59	\$.65
50-99 sq. yds.	.64	.70
20-49 sq. yds.	.69	.75
Less than 20 sq. yds. MINIMUM CHARGE	15.00	15.00

KNIGHT BLACK SHEEN SHADING CLOTH

A heavier cloth designed for indoor shading on a year-round program as it cuts out 100% of all light. Recommended especially by universities and experimental stations for off-season growing where total exclusion of light is essential. Otherwise same as American Black Sheen listed above.

PRICES PER SQ. YD.	Unsewed	Sewed
100 sq. yds. or more	\$.65 1/2	.71 1/2
50-99 sq. yds.	.70 1/2	.76 1/2
20-49 sq. yds.	.75 1/2	.81 1/2
Less than 20 sq. yds. MINIMUM CHARGE	16.50	16.50

LONG LIFE SARAN CLOTH HOUSE

SARAN, the new material for cloth houses, is fast making the old cotton cloths obsolete. SARAN is a plastic screening made by Dow Chemical Co. and will outlast copper screening, giving 10 years service. Non-inflammable and impervious to water. Air circulates freely through its fine mesh with 68% light filtration.

PRICES F.O.B. NEW JERSEY	
33' x 33'	\$113.93
33' x 66'	188.79
33' x 99'	274.82
33' x 132'	351.54
66' x 66'	358.98
66' x 99'	480.81
66' x 132'	\$610.55
66' x 165'	752.37
99' x 99'	692.85
99' x 132'	873.27
99' x 165'	1074.62

A. F. S. SPECIAL HEAVY PLASTIC STERILIZING CLOTH

After years of experimenting we have found a heavy plastic material that makes the best sterilizing blanket so far. Strong (heavy 12 gauge), yet flexible.

Makes a tight joint at bench edges. Light (15 oz. a sq. yd.) and easy to handle. Transparent.

Available in any length or width, but pieces 6 ft. or 8 ft. wide are the most popular. Price, F.O.B. Philadelphia, Per sq. yd. ... \$1.75

INSECTICIDES AND FUNGICIDES

AEROSOL BOMBS.

No.	Type	Each	*Deposit
G-52	TEPP	\$ 6.50	\$3.75
G-54	Parathion	8.00	3.75
G-57	Dithion	8.00	3.75
G-60	Aramite	12.00	3.75
G-62	Malathion	9.75	3.75

*NOTE: The Deposits on the Bombs are refunded when they are returned to us prepaid.

ARAMITE , 15% Wettable. 4-lb.		\$ 3.20
50 lb.		38.50
CHLORDANE , 5% Dust. 50-lb.		\$ 7.50
CHLOROBENZILATE , 25% Wettable		
4 lb.		\$ 6.00
DDT , 50% Wettable. 4 lb.		\$ 1.60
FERMATE , 4 lb.		\$ 2.45
Case of 12 4-lb.		25.80
LINDANE , 25% Wettable. 4 lb.		\$10.00
MALATHION , 50% Emulsifiable		
Pint		\$ 2.95
Gallon		\$14.50
MILDEX , 3 lb.		\$ 6.30
NICOFUME PRESSURE FUMIGATORS .		
Case of 12 1/2-lb.		\$ 4.50
Case of 12 1-lb.		8.55

NICOFUME LIQUID . Quart		\$ 3.20
Gallon		11.05
ORTHOCIDE 50W . Contains Captan		
5 lb.		\$ 5.00
PARATHION , 15% Wettable. 4-lb.		\$ 3.00
PARZATE , 3 lb.		\$ 2.85
PLANTFUME SMOKE GENERATORS		
5,000 cu. ft. size, case of 36.		\$10.50
20,000 cu. ft. size, case of 12.		12.00
SANTOMERSE S . Gallon		\$ 5.50
SNAILICIDE , 5-lb.		\$ 4.00
20 lbs.		\$13.00
50 lbs.		\$29.00
SNAROL . Metaldehyde Bait.		
1-lb.		\$.50
2 1/2-lb.		\$ 1.00
6-lb.		2.00
50-lb.		10.00
SODIUM SELENATE . Pure		
4 oz.		\$3.25
1-lb.		\$ 9.00
SODIUM SELENATE POWDER . "Seltox"		
25-lb.		\$ 7.25
50-lb.		\$13.50
100-lb.		24.00
500-lb.		112.50
VAPOTONE TEPP SPRAY . Gallon		\$11.90
ZERLATE . 3 lb.		\$ 2.45
Case of 12 3 lb.		25.80